31/5/2 (Item 2 from file: 347)
DIALOG(R)File 347:JAPIO
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06131899 **Image available**
DESIGNING SUPPORT DEVICE FOR BOTTLE

PUB. NO.: 11-073437 [JP 11073437 A]
PUBLISHED: March 16, 1999 (**19990316**)
INVENTOR(s): NABESHIMA HIROHIDE
NISHIMINE NAOHIDE
NAKANO TAKASHI
APPLICANT(s): KAO CORP
APPL. NO.: 09-231350 [JP 97231350]
FILED: August 27, 1997 (19970827)
INTL CLASS: G06F-017/50; B29C-049/00; B65D-001/09

ABSTRACT

PROBLEM TO BE SOLVED: To support the general designing of a bottle shape including a bottom surface from its initial stage by displaying the figure of the **bottle** bottom surface as **three - dimensional** information read selectively out of a data base in the form of a figure.

SOLUTION: A product engineer selects bottom surface shapes matching a bottle main body shape out of bottle bottom surface shapes that a metal mold engineer has design and stored in the data base 25 in the past and combines them. Namely, retrieval from the data base 25 is performed on receiving a decision on a target bottom surface shape to select the bottom surface shapes similar to the target bottom surface shape. Then raised bottom height is determined according to characteristics of volume, the **center** of **gravity** , etc., and the data that the metal mold engineer has stored in the data base 25. The dimensions of the similar bottom surface shape are matched with the horizontal and vertical dimensions of the target bottom surface shape by linear scaling. Then the similar bottom surface shape is deformed and united with the bottle main body shape.

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13/5/20 (Item 12 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00275099 **Image available**
METHOD FOR WEIGHING A LOAD
PROCEDE DE PESAGE D'UNE CHARGE
Patent Applicant/Assignee:
KOIVISTO Vesa,
Inventor(s):
KOIVISTO Vesa,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9423275 A1 19941013
Application: WO 94FI115 19940328 (PCT/WO FI9400115)
Priority Application: FI 931417 19930329
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
CA JP NO US AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
Main International Patent Class (v7): G01G-019/12
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 3761

English Abstract
The invention relates to a method for weighing a load (K) arranged on a load bed, in which method, in the solid frame (1) of the load bed, at the measuring points (C1, C2, C3, C4) located in the vicinity of the fastening points or support points (A1, A2, B1, B2) of the supports, there are attached strain gauge detectors, and the weight of the load (K) is defined from the signals from these detectors, on the basis of the deformations in the frame (1). According to the invention, the measuring points (C1, C2, C3, C4) are defined on the basis of a known method (Finite Element Method FEM) for defining shearing strain in structures, so that the measuring points (C1, C2, C3, C4) are placed in the vicinity of the support points (A1, A2, B1, B2), in essentially interference-free shearing strain areas; and the detectors attached to the defined measuring points (C1, C2, C3, C4) are calibrated by means of test measurements, so that correction coefficients are determined for the said detectors on the basis of the shearing strain loads of the second support points (A2, B1, B2) affecting each support point (for instance A1), and the said correction coefficients are used for calculating the real weight measurement values, such as total weight and/or support point weights, from the weighing values proper.

30/5/17 (Item 17 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)
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05874963 E.I. Monthly No: EIM9003-010505
Title: Computer aided design **of unit** loads .
Author: Daboub, Juan J.; Trevino, Jaime; Liao, Hsuan-Hui; Wang, Jun
Corporate Source: North Carolina State Univ, NC, USA
Conference Title: Proceedings of the 11th Annual Conference on Computers and Industrial Engineering
Conference Location: Orlando, FL, USA Conference Date: 19890315
E.I. Conference No.: 12784
Source: Computers & Industrial Engineering v 17 n 1-4 1989. p 274-280
Publication Year: 1989
CODEN: CINDDL ISSN: 0360-8352
Language: English
Document Type: JA; (Journal Article) Treatment: E; (Economic/Cost Data/Market Survey)
Journal Announcement: 9003
Abstract: The unit load design problem includes the selection of the best pallet or container size, the best pallet or container layout, and the best number of parts per pallet or **container** . Three different approaches to solve the unit **load** design problem are identified in this paper and a new procedure is proposed: **Computer** Aided Design of Unit Loads (CADUL I). Using CADUL I, unit loads are designed considering system constraints (i.e., rack opening dimensions, aisle width, trailer-truck container dimensions, product crushability constraints, material handling equipment stacking capability and weight capacity) and a cost function that includes handling, storage, transportation, and pallet or container costs. (Edited author abstract) 18 Refs.

30/5/24 (Item 24 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)
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04186146 E.I. Monthly No: EI8205037778 E.I. Yearly No: EI82019201
Title: COMPUTER SIMULATION **OF** WEIGHT **DISTRIBUTIONS OF SPHERICAL-PARTICLE BEDS ON THE BOTTOM OF A CONTAINER.**
Author: Gotoh, Keishi; Chiba, Toshifumi; Suzuki, Akira
Corporate Source: Hokkaido Univ, Hakodate, Jpn
Source: International Chemical Engineering v 22 n 1 Jan 1982 p 107-115
Publication Year: 1982
CODEN: INCEAX ISSN: 0020-6318
Language: ENGLISH
Journal Announcement: 8205
Abstract: The **weight** distribution at the bottom of a packed **bed** of spherical particles was simulated by a **computer** . The particles were supplied either from the middle of the container, with and without walls, or from the periphery of the **container** . Only the vertical particle **load** was taken into account; transverse forces were ignored, except those related to contact between the particles and the wall. The average radial number-concentration of particles within the container was fairly uniform and independent of the type of bed. From the microscopic viewpoint, however, the structure of the **bed** was such that the **load** of each particle extended a long way out from the particle-feed position. This shows the importance of anisotropy in the structure of the packing as a factor controlling the weight distribution at the bottom. 9 refs.
Descriptors: ***COMPUTER** SIMULATION
Identifiers: PARTICLE BEDS
Classification Codes:
723 (Computer Software)
72 (COMPUTERS & DATA PROCESSING)

14/9/1 (Item 1 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
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16503345 SUPPLIER NUMBER: 110739275 (THIS IS THE FULL TEXT)
Software simulates many disciplines in one model.(User Review)(Product/Service Evaluation)

Ormistron, Patrick
Machine Design, 75, 21, 116(2)
Nov 6, 2003
DOCUMENT TYPE: Product/Service Evaluation ISSN: 0024-9114
LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 699 LINE COUNT: 00061

TEXT:

Large off-road vehicles are made of many subsystems such as mechanical devices in the driveline, thermodynamic systems in the radiator, electrical and hydraulic components, as well as digital controls. Until recently, simulating complex products meant working on individual systems and hoping they functioned properly in the physical prototype. The recently available Dynasty software simplifies the task of working with many subsystems by painting a comprehensive picture of what is happening in each as well as predicting the overall machine performance.

Dynasty lets users focus on performance modeling, not the underlying math and physics. Users build schematic machines by dragging and dropping components and connecting them together. The software comes with more than 230 components such as engines, controls, electronics, fluids, linkages, body structures, and drivelines. Users can also create and reuse their own components.

After building a model, the program converts components and associated design and performance data to symbolic equations. The application optimizes the equations for rapid simulation.

Users get point-and-click access to simulation results without having to predefine sensors at particular locations, a must for some dynamic-simulation programs. Results are tabulated, plotted, and viewed as 3D animations. They can also be exported to other programs such as Matlab for control studies or Nastran for stress results. In the later case, Dynasty lets user place virtual strain gages on parts. The deformations they record can be sent to FEA programs such as Nastran or Ideas. This lets users sample operating conditions of components as diverse as fuel pomps and cooling systems.

The software also provides dynamic structural stress-and-strain predictions of fuel injectors and fuel-system pumps, analysis of cooling systems, and development and validation of the control systems.

Another plus for the software is that it lets users see complex designs as coupled systems rather than disconnected problems. Dynasty shows how components or subsystem-level changes affect overall machine performance. The software is also useful diagnosing, and responding to customer-equipment problems.

Engineers at Caterpillar Inc. developed the simulation software and used it to design the 797B mining truck, the company's largest piece of equipment. The truck went from concept to production in roughly in half the time it would have taken if working only with a large physical prototype.

The size and cost of building the 797B meant trial-and-error approaches would not work on components affecting the truck's ride, stability, and structural integrity. Dynasty helped users optimize the performance of the 797's subsystems, such as the 24-cylinder engine, transmission, torque converter, and suspension before the prototype.

In the 797 program, we imported the truck's **CAD** geometry, along with **mass** and stiffness data, to represent the frame, suspension, and **dump body** . These flexible bodies were connected to other mechanical and hydraulic-system components to develop a more detailed model.

Simulations indicated that we needed to change the rear suspension. Previous mining trucks use an A-frame attached with a single joint at the tip of the frame, where the axle and chassis connect. The software indicated that one bearing large enough to handle stresses from the 360-ton payload would not fit within the space available. After simulating several alternatives, engineers designed a four-link frame that better balances chassis loads. Distributing loads to four bearings also reduced driveshaft angles and improved drive-train efficiency.

Most engineers can use the software after a 4-hr introductory class. Advanced, discipline-specific classes are also available. Comprehensive

documentation covers the underlying physics of components. The system runs on Windows 2000 (with at least 128-Mbytes RAM and 175 Mbytes on the hard drive) or on HP-UX 10.2 or 11.0 and a HP workstation with a PA-Risc V2.0 and similar RAM and disk space.

Dynasty also requires C or Fortran compilers.

Dynasty comes from Caterpillar Inc., (309) 675-5919, licensing@cat.com

Circle 426

(ILLUSTRATION OMITTED)

Patrick Ormistron is a product-design engineer at Caterpillar, a manufacturer of construction, mining,

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COMPANY NAMES: Caterpillar Inc.--Products
INDUSTRY CODES/NAMES: BUSN Any type of business; ENG Engineering and Manufacturing; METL Metals, Metalworking and Machinery
DESCRIPTORS: Computer software industry--Products
GEOGRAPHIC CODES/NAMES: 1USA United States
EVENT CODES/NAMES: 330 Product information
TICKER SYMBOLS: CAT
FILE SEGMENT: TI File 148

14/9/2 (Item 1 from file: 624)

DIALOG(R)File 624:McGraw-Hill Publications
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01139963

Overburden Truck

Intermountain Contractor, Vol. 65, No. 12, Pg 46
September, 1999
JOURNAL CODE: IC
SECTION HEADING: New Products ISSN: 0020-7164
WORD COUNT: 76

TEXT:

Philippi-Hagenbuch, Inc. (PHIL), Peoria, announces the development of Caterpillar 793C HIVOL Overburden Truck Bodies using its new patent pending **Load** Profile Design Process for the **modeling** and building of off-highway truck **dump** **bodies** . This process takes into account field loading and haulage conditions resulting in a body built to meet OEM manufacturer weight distribution and gross vehicle weight guidelines. Contact (309) 697-9200 for more information.

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COMPANY NAMES: Philippi Hagenbuch Inc

21/9/2 (Item 2 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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01352461 SUPPLIER NUMBER: 08297076 (THIS IS THE FULL TEXT)
CAD models the real thing: the Coca-Cola Company pumps out bottle designs with PC CAD.
Godden, Michael
Computer-Aided Engineering, v9, n3, p52(2)
March, 1990
ISSN: 0733-3536 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 1008 LINE COUNT: 00079

ABSTRACT: Coca-Cola Co's three member package design and drafting team uses VersaCAD Design. VersaCAD was implemented in 1986 after several experiences with other systems. Bottles and plastic containers for Coke, Sprite, Fanta and Tab can now be designed in half the time once needed using manual disciplines. Approximately 150 bottle designs are completed annually. VersaCAD is a microcomputer-based 3D CAD system from Versacad Corp. When the system was selected, the engineers were looking for an economically feasible CAD software package that could take advantage of a downward migration of mainframe CAD capabilities. Coca-Cola's CAD design hardware includes the IBM PS/2 80, an 8514 high-resolution color monitor, Kurta 12 X 12-inch digitizer, and HP 7550 flatbed plotter.
TEXT:

CAD Models the Real Thing

There's a lot to be said about the good old days, like front porch chats, 45 records, and 6-1/2 oz. Coca-Colas. Some who reminisce think of those times as slower and simpler--better--than now. But the three member package design and drafting section within the corporate packaging department of the Coca-Cola Co., Atlanta, GA, remembers the old days not so much as good, but as CAD-less and anything but simple. The design process was a slow, tedious, and hand-drawn task.

They design glass and plastic bottles for Coke, Sprite, Fanta, Tab, various generic bottles, as well as any bottle packaging graphic limitations for labels and logos, that accompany bottles worldwide. The demands of today's international bottling market require design tools that eliminate the old manual, time-consuming operations and generate precise, complicated designs quickly.

Since 1986, the design team at Coca-Cola has been using VersaCAD Design, a microcomputer-based 3D CAD system from Versacad Corp., Huntington Beach, CA, to create drawings in a flash. Now, an initial bottle design and engineering drawings can be completed in half the time required by manual disciplines. Michael Godden, department supervisor, explains the need for CAD was paramount considering their workload. His department completes approximately 150 bottle designs each year. Company operations in Australia can have a design in hand within 24 hours of the request. And, redesigns are ready within one day compared to three during pre-CAD days. Since CAD, their design production has increased 100 percent. Coca-Cola bottlers have different manufacturing and materials requirements that warrant variations in bottle designs.

A Long Time Coming

VersaCAD, a relatively new member of the design team, came on board only after many design attempts using other systems. None met requirements for model quality or design time. A decent bottle contour could take as long as ten hours and generating an engineering drawing took four days. One of the reasons for the delays was design complexity. According to Godden, "A bottle design is difficult to construct geometrically. It has as many as 12 different radii. It's important to our design that opposing radii meet at the same tangent." The CAD systems they tried could not connect the tangents correctly. Back then, it looked like the solution was purchasing a mainframe system plus support personnel and that equalled exorbitant costs.

Instead, they looked at more economically feasible CAD software packages that ran on PCs. For their design purposes, they knew they needed to take advantage of downward migration of mainframe CAD capabilities to the PC. Their initial investment, 2D Versa-CAD Advanced, ran on an IBM AT. It was successful at designing glass and plastic containers with cylindrical cross-sections. But anything more complicated meant back to square one. As Godden explains, "... with the increasing worldwide demand for specialty containers of irregular cross-sections, the group had to

return to manual drafting methods to design and calculate the volumes of these containers." So sometimes, though it couldn't be helped, calculations were based upon estimations rather than precise equations. The design staff knew a system with more CAD capabilities would solve these glitches.

No More Design Rigmarole

And they were right. Since December, 1986, when VersaCAD Design was installed, their designs have been right on the money. Their first 3D design was with Coke's trademark, the 6-1/2 oz. classic-contour, "hobbleskirt" bottle, which is geometrically complicated to construct even in a 2D plane.

No problem, says Godden. "One method is to create the object by building the shape with spheres, cubes, cylinders, or cones." Drafts move from 2D bottle contours to 3D wireframe models--just exactly what the design group was aiming for all along.

Once a design is in a 3D plane, designers can zoom in on, pan, and rotate the object to allow viewing from any perspective. What's more, the system gives isometric views automatically and designs from all axes for orthographic projection. The application allows users to quickly and accurately construct a **container**, vary its height, and diameter, and use **3D mass** properties to calculate volume. Now, designs can be shaded and displayed in perspective with mass properties calculated or plotted with hidden lines removed. The same process is used to design containers with non-cylindrical cross-sections.

The Whole Shebang

All 3D views can be stored in a file for later output on a color plotter. The advantage of designing in color enables users to compare contours to different designs in overlay drawings, and option they weren't afforded before. Editing is a snap with multiple viewports, since a change in any view is automatically updated in all others.

VersaCAD analyzes the design shape to reproduce others for various packaging sizes. The speed of the system quickly models and generates working drawings. PET base volumes used to be determined by displacement methods using manufactured prototypes, not solid modeling.

When designers get a request for a logo, they simply digitize a sketch and use the system's Bezier curve feature to perfect and manipulate the logo's curves and bends. The logo can be stored in the symbol library for use with current or future products.

Training Was a Breeze

Godden reports the system is flexible and easy to use. Learning the program was quick and painless for the designers. They found they could tailor it to fit their needs and "one-of-a-kind" design tasks by using it to model, view, and modify existing drawings as their parameters changed. Godden and his staff had two days of formal, 2D training. They went back to the department toting VersaCAD Design with them. "We made ourselves use the system. Our workload dictated that we use it," Godden says.

CAPTIONS: User profile. (table); Shaded and unshaded models of the 6-1/2 oz classic contour. (chart)

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SPECIAL FEATURES: illustration; photograph; table; chart
COMPANY NAMES: Coca-Cola Co. (Atlanta, Georgia)--Data processing
DESCRIPTORS: Computer-Aided Design; Modeling; Solids Modeling
SIC CODES: 2086 Bottled and canned soft drinks
TICKER SYMBOLS: KO
TRADE NAMES: VersaCAD (CAD software)--Usage
FILE SEGMENT: CD File 275

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File   8:Ei Compendex(R) 1884-2007/Apr W4
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         (c) 2007 American Mathematical Society
File 248:PIRA 1975-2007/Apr W2
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Set     Items   Description
S1    4500448   LOAD OR LOADS OR MASS OR WEIGHT
S2     267368   S1(5N)(MODEL???? OR SIMULAT? OR (THREE OR MULTI)()DIMENSIO-
              N? OR 3D OR 3()D OR CAD OR CAM OR COMPUTER()AIDED()(DESIGN OR
              MANUFACTURING))
S3    2188165   BODY OR HAUL???? OR TOW OR TOWS OR TOWED OR TOWING OR CARR-
              IAGE OR CARRY??? OR BED OR DECK OR CARGO OR FREIGHT OR LOADIN-
              G()AREA OR PAYLOAD OR WAGON OR CHASSIS
S4    1983227   TRUCK? ? OR VEHICLE? ? OR TRAILER? ? OR AUTOMOBILE? ? OR C-
              AR? ?
S5    1214897   CONTAINER? ? OR BOTTLE? ? OR VESSEL? ? OR TANK? ? OR RECEP-
              TACLE? ? OR DUMP()BODY OR BED OR CARGO OR PAYLOAD
S6       9393   CENTER(3W)GRAVITY
S7     184352   S1(5N)(DISTRIBUT? OR SPREAD??? OR FILL???)
S8      65373   S3(10N)S4
S9       1028   S2 AND S8
S10        74   S9 AND S6:S7
S11        62   RD  (unique items)
S12        35   S11 NOT PY=2001:2007
S13      3992   S2(10N)S5
S14       279   S13 AND S6:S7
S15       241   RD  (unique items)
S16       133   S15 NOT (S11 OR PY=2000:2007)
S17     54155   S1(3N)(MODELLING OR MODELLED OR SIMULAT? OR (THREE OR MULT-
              I)()DIMENSION? OR 3D OR 3()D OR CAD OR CAM OR COMPUTER()AIDED-
              ()(DESIGN OR MANUFACTURING))
S18        30   S16 AND S17
S19       351   S8 AND S17
S20         0   S2 AND (DUMP()(BODY OR BODIES))
S21         3   (DUMP()(BODY OR BODIES))(7N)(MODEL???? OR SIMULAT? OR (THR-
              EE OR MULTI)()DIMENSION? OR 3D OR 3()D OR CAD OR CAM OR COMPU-
              TER()AIDED()(DESIGN OR MANUFACTURING))
S22        35   S2/TI AND S19
S23        27   RD  (unique items)
S24        19   S23 NOT PY=2000:2007
S25      1698   S17/TI AND (SOFTWARE OR COMPUTER)
S26         2   S25 AND S6
S27    317354   S1(7N)(S3 OR S5)
S28       101   S25 AND S27
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S29         71   RD  (unique items)
S30         37   S29 NOT PY=2000:2007
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12/5/3 (Item 3 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)
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07523660 E.I. No: EIP96103360569
Title: Impact of liquid load shift on the braking characteristics of partially filled tank vehicles
Author: Ranganathan, R.; Yang, Y.S.
Corporate Source: Univ of Missouri, Columbia, MO, USA
Source: Vehicle System Dynamics v 26 n 3 Sep 1996. p 223-240
Publication Year: 1996
CODEN: VSDYA4 ISSN: 0042-3114
Language: English
Document Type: JA; (Journal Article) Treatment: T; (Theoretical)
Journal Announcement: 9612W2
Abstract: Braking characteristics of a tractor-tank-semitrailer vehicle is investigated by incorporating the influence of liquid **load** shift occurring within the partially **filled** tank. The tank vehicle model is developed by integrating a steady state model of a partially filled tank and a pitch plane **model** of the vehicle. The liquid **load** shift occurring in the pitch plane of the vehicle during a braking maneuver is characterized using the change in the gradient of the free surface of liquid and the corresponding shift in the **center** of **gravity** of the fluid bulk. The change in normal load on the various axles of the vehicle during the maneuver is then computed to analyze the braking behavior of the partially filled tank vehicle. The braking characteristics of the tank **vehicle** are then compared to those of an equivalent rigid **cargo vehicle** in order to study the impact of liquid load shift. Influence of various vehicle and tank design parameters on the braking behavior and wheel lock-up condition is also investigated for typical braking maneuvers. (Author abstract) 15 Refs.
Descriptors: *Braking; Tank trucks; Tractors (truck); Fluid dynamics; Mathematical models; Maneuverability; Axles; Gravitation
Identifiers: Liquid **load** shift; Partially **filled** tank; Tank vehicle model; Wheel lock up condition; Semitrailer vehicle
Classification Codes:
663.1 (Heavy Duty Motor Vehicles); 931.1 (Mechanics); 631.1 (Fluid Flow, General); 921.6 (Numerical Methods); 663.2 (Heavy Duty Motor Vehicle Components)
602 (Mechanical Drives & Transmissions); 663 (Heavy Duty Vehicles); 931 (Applied Physics); 631 (Fluid Flow & Hydrodynamics); 921 (Applied Mathematics)
60 (MECHANICAL ENGINEERING); 66 (AUTOMOTIVE ENGINEERING); 93 (ENGINEERING PHYSICS); 63 (FLUID DYNAMICS & VACUUM TECHNOLOGY); 92 (ENGINEERING MATHEMATICS)

12/5/4 (Item 4 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)
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07119646 E.I. No: EIP95032634968
Title: Prediction of heavy-vehicle weight distributions
Author: Fekpe, Edward S.K.; Clayton, Alan
Corporate Source: Univ of Manitoba, Winnipeg, Manit, Can
Source: Journal of Transportation Engineering v 121 n 2 Mar-Apr 1995. p 158-168
Publication Year: 1995
CODEN: JTPEDI ISSN: 0733-947X
Language: English
Document Type: JA; (Journal Article) Treatment: G; (General Review); T; (Theoretical)
Journal Announcement: 9505W4
Abstract: A new methodology for predicting heavy-vehicle **weight distributions** and pavement loadings in terms of the governing weight limits and the intensity of enforcement is presented. Gross vehicle **weight** (GVW) predictive **models** are developed for defined reference truck types in two identifiable **weight - distribution** families under steady-state conditions. These models determine the probability of trucks operating at or less than a given GVW expressed as a percent of the prevailing weight limit and as a function of the intensity of enforcement of the governing

regulations. A concept of truck substitution ratios is introduced to translate the predicted GVW distributions of the reference trucks into those of other truck types. The predicted GVW distributions are then converted into pavement loading on the basis of the weight split factors of the various axle units on the configuration. The methodology has strong predictive capabilities, with the models being stable both in time and space. (Author abstract) Refs.

Descriptors: ***Freight** transportation; **Trucks** ; Weighing; Pavements; Load limits; Dynamic **loads** ; Wear of materials; Mathematical **models** ; Probability

Identifiers: Heavy vehicles; **Weight distributions** ; Gross vehicle **weight** (GVW); Pavement loadings

Classification Codes:

432.3 (Cargo Highway Transporation); 663.1 (Heavy Duty Motor Vehicles); 943.2 (Mechanical Variables Measurements); 406.2 (Roads & Streets); 408.1 (Structural Design, General)

432 (Highway Transportation); 663 (Heavy Duty Vehicles); 943 (Mechanical & Miscellaneous Measuring Instruments); 406 (Highway Engineering); 408 (Structural Design); 421 (Materials Properties)

43 (TRANSPORTATION); 66 (AUTOMOTIVE ENGINEERING); 94 (INSTRUMENTS & MEASUREMENT); 42 (MATERIALS PROPERTIES & TESTING)

12/5/16 (Item 1 from file: 6)

DIALOG(R)File 6:NTIS
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2004563 NTIS Accession Number: AD-A322 358/3

Medium Girder Bridge (MGB) Palletized Loading System (PLS) M1 Flatrack Load Configuration Study

(Final rept)

Horton, D.
Tacom Research, Development and Engineering Center, Warren, MI.

Corp. Source Codes: 106737000; 425649
Report No.: TARDEC-TR-13701
Mar 97 22p
Languages: English
Journal Announcement: GRAI9715

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NTIS Prices: PC A03/MF A01
Country of Publication: United States

This report addresses the Palletized Loading System (PLS) M1 flatrack loading configurations for the Medium Girder Bridge (MGB) Bridge Set, Erection Set and Link Reinforcing Set (LRS). The Optimum arrangement of MGB components on PLS M1 flatracks was determined through the use Computer Aided Modeling (CAM) of both MGB components and the PLS M1 flatrack. The results of the study are that the MGB Bridge Set can be loaded onto a minimum of six M1 flatracks, the Erection Set can be loaded onto two M1 flatracks and the LRS can be loaded onto one M1 flatrack. Modified Bridge and Erection sets were also modeled. The modified Bridge Set eliminates multiple shorter bridging capabilities through the removal of duplicate end-of-bridge components. The modified Erection set eliminates simultaneous erection capabilities through the removal of duplicate erection components. The modified Bridge Set can be loaded, with less than full height loads, onto seven M1 flatracks, the modified Erection Set can be loaded onto one M1 flatrack. Modified LRS configurations were not examined. An MGB set contains two Bridge and two Erection Sets and one LRS, an MGB set composed of modified Bridge and Erection Sets still retains multiple bridging and simultaneous launching capabilities.

Descriptors: *Structural analysis; *Pallets; *Military bridges; *Girder bridges; **Load distribution** ; **Payload** ; Computer **aided design** ; Loading(Handling); Modular construction; **Trailers** ; Assembly; Tiedown devices; Dump trucks; Transporter erectors; Structural integrity

Identifiers: Pls(Palletized loading system); Medium girder bridge; Flatracks; NTISDODXA

Section Headings: 50A (Civil Engineering--Highway Engineering); 74E (Military Sciences--Logistics, Military Facilities, and Supplies)

12/5/17 (Item 2 from file: 6)
DIALOG(R)File 6:NTIS
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1768131 NTIS Accession Number: PB94-106960
Enhancement of Existing Engineering Software. Volume 5. Transverse Load Distribution **in Slab-Girder Bridges**
(Technical rept)
Finch, T. R. ; Puckett, J. A.
Mountain-Plains Consortium.
Corp. Source Codes: 099714000;
Sponsor: Wyoming Univ., Laramie. Dept. of Civil Engineering.; Department of Transportation, Washington, DC. University Transportation Centers Program.
Report No.: MPC-92-9-VOL-5
Jul 92 141p
Languages: English
Journal Announcement: GRAI9402
See also PB93-219566. Prepared in cooperation with Wyoming Univ., Laramie. Dept. of Civil Engineering. Sponsored by Department of Transportation, Washington, DC. University Transportation Centers Program.
Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.
NTIS Prices: PC A07/MF A02
Country of Publication: United States
The finite strip method was used to develop an automated procedure for determining the **distribution** of **load** on highway bridges subjected to both standard truck loads and overload permit vehicle **loads** . The **distribution** factors obtained by this procedure are used in the design and load rating of highway bridges. Several verification problems were used to compare the automated procedure to closed-form solutions available from the theory of plates and shells. In addition, distribution factors from the numerical procedure were compared to various simplified methods for determining **load distribution** in highway bridges.
Descriptors: *Highway bridges; *Load bearing capacity; *Software(Computers); **Loads** (Forces); Girders; Algorithms; Computerized **simulation** ; Finite element analysis; **Trucks** ; **Cargo transportation** ; Design criteria
Identifiers: NTISDOTOUR
Section Headings: 50A (Civil Engineering--Highway Engineering)

12/5/20 (Item 5 from file: 6)
DIALOG(R)File 6:NTIS
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1596251 NTIS Accession Number: AD-A237 199/5
Lateral Load Distribution **in One-Way Flat Slabs**
(Final rept. May 87-Sep 90)
Warren, G. E. ; Malvar, L. J.
Naval Civil Engineering Lab., Port Hueneme, CA.
Corp. Source Codes: 014399000; 248150
Report No.: NCEL-TR-935
May 91 65p
Languages: English
Journal Announcement: GRAI9121
Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.
NTIS Prices: PC A04/MF A01
Country of Publication: United States
Results of laboratory model tests, inservice pier tests, classical plate theory, and finite element analyses provide the basis for changes in Military Handbook 1025/1 addressing flat slab pier dock design to **distribute** truck crane outrigger **loads** . The concentrated **load distribution** efficiency of Navy pier slabs can be doubled over current AASHTO allowables. For pier **deck** designs where large, **truck** -mounted cranes dominate load requirements, this will result in higher load capacity, longer spans, and less construction material. Further, the

verified effectiveness of lateral **load distribution** would almost double outrigger **load** -carrying efficiency of current Navy pier decks.
Descriptors: ***Load distribution** ; *Piers; Capacity(Quantity); Construction materials; Cranes; Efficiency; Finite element analysis; Laboratory tests; **Loads** (Forces); **Model** tests; Mounts; Navy; Requirements; Ship decks; Struts; Test and evaluation; Trucks
Identifiers: *Structural analysis; *Concrete slabs; Strength(Mechanics); Reinforced concrete; NTISDODXA
Section Headings: 50B (Civil Engineering--Civil Engineering); 50C (Civil Engineering--Construction Equipment, Materials, and Supplies)

12/5/22 (Item 7 from file: 6)
DIALOG(R)File 6:NTIS
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1072931 NTIS Accession Number: AD-A133 720/3
Development of an Interactive Computer Program to Produce Body Description Data
(Technical rept. Apr-Aug 82)
Baughman, L. D.
Dayton Univ., OH. Research Inst.
Corp. Source Codes: 007431003; 105400
Sponsor: Air Force Aerospace Medical Research Lab., Wright-Patterson AFB, OH.
Report No.: UDR-TR-83-06; AFAMRL-TR-83-058
Jul 83 74p
Languages: English
Journal Announcement: GRAI8403
Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.
NTIS Prices: PC A04/MF A01
Country of Publication: United States
Contract No.: F33615-81-C-0513; 7231; 15
This report documents program GEBOD (GEnerator of BODy data) an interactive computer program which produces the body description portion of the ATB (Articulated Total Body) Model input deck. The ATB Model simulates the motion and dynamic properties of the human **body** during events such as aircraft flight seat ejection and **automobile** crashes. This **simulation** requires the **mass** , **center** of **gravity** location, contact surface dimensions, joint locations, principal moments of inertia and their associated directions for each of fifteen body segments. The starting point for GEBOD was a program written by Calspan Corporation named GOOD, which was also designed to produce body description data for crash simulation models, For GEBOD, modifications and improvements include: (1) Utilization of different anthropometric data bases for computing regression equations. (2) Changes in segment contact ellipsoid and joint location definitions to make body dimensions more realistic. (3) Use of right elliptical solids in describing torso segments. (4) Incorporating flexibility and user ease into GEBOD's interactive protocol. (Author)
Descriptors: *Computer programs; *Anatomical models; *Anthropometry; *Computerized simulation; Human body; Motion; Biodynamics; Data bases; Sizes(Dimensions); Regression analysis; Equations
Identifiers: Gebod program; Good program; NTISDODXA; NTISDODAF
Section Headings: 95D (Biomedical Technology and Human Factors Engineering--Human Factors Engineering)

12/5/23 (Item 8 from file: 6)
DIALOG(R)File 6:NTIS
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0814533 NTIS Accession Number: PB80-156961/XAB
Mathematical Modeling of DODX Railcars
(Final rept. Oct 75-Jun 77)
Jones, C. T.
ENSCO, Inc., Alexandria, VA. Engineering Test and Analysis Div.
Corp. Source Codes: 058570001
Sponsor: Federal Railroad Administration, Washington, DC.
Report No.: ENSCO/DOT-FR-77-20; FRA/ORD-78/47

Feb 80 168p
Languages: English
Journal Announcement: GRAI8013
Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.
NTIS Prices: PC A08/MF A01
Country of Publication: United States
Contract No.: DOT-FR-64113
This report presents the results of a project conducted to determine the roll stability characteristics of large capacity **freight cars** , 100 to 200 ton, loaded with high **center** of **gravity** containers. The model, obtained from AAR, is a 22 degree-of-freedom, non-linear, time domain model of railcars equipped with two axle trucks. The model was modified to include hydraulic dampers, an improved Coulomb friction damping model, and a track input to simulate perturbed track specified in AAR specification D-65. Also a lower order integration technique and a larger integration stepsize were employed to reduce computer run time. The model was validated against each of four vehicles on which full scale field tests had been conducted. In three of the four cases sufficient agreement was found between the results of the model and those of the field test to proceed with further **simulations** of other **load** /suspension configurations. Results of these **simulations** suggest that improvement in roll stability can be achieved by reducing the vehicle suspension spring rate or similarly increasing the load. It was also found that one of the vehicles studied possessed a dead band in the stroke of the hydraulic stabilizer. By modifying this stabilizer to operate over the full stroke, vehicle dynamic performance should show improvement.
Descriptors: *Railroads; * **Freight cars** ; Computerized simulation; Degrees of freedom; Stability; Undercarriage; Fortran; Computer programs; Dynamic response
Identifiers: Fortran 4 programming language; NTISDOTFRA
Section Headings: 85I (Transportation--Railroad Transportation)

12/5/25 (Item 10 from file: 6)
DIALOG(R)File 6:NTIS
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0709456 NTIS Accession Number: PB-282 308/6/XAB
A Mathematical-Computer Simulation of the Dynamics of a Freight **Element in a Railroad** Freight Car
(Interim technical rept. no. 3)
Shum, K. L. ; Willis, T.
Illinois Inst. of Tech., Chicago. Dept. of Mechanics, Mechanical and Aerospace Engineering.
Corp. Source Codes: 400437
Sponsor: Federal Railroad Administration, Washington, D.C. Office of Research and Development.; Association of American Railroads, Chicago, Ill. ; General Motors Corp., La Grange, Ill. Electro-Motive Div.
Report No.: IIT-TRANS-75-2; FRA/ORD-77/28
Jul 77 127p
Journal Announcement: GRAI7819
Sponsored in part by Association of American Railroads, Chicago, Ill. and General Motors Corp., La Grange, Ill. Electro-Motive Div.
Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.
NTIS Prices: PC A07/MF A01
Contract No.: DOT-OS-40103
This research studies the dynamic response of a **freight** element, inside a typical **freight** box **car** under service conditions, by a computer-model simulation technique. A 27 degree of freedom mathematical model has been developed to represent the **freight car** , **truck** and **freight** element, with the **car body** as a single rigid **mass** . This **model** has been validated against published railroad research data. This model is a more detailed one than most previously published simulations, and has additional characteristics. One is the option of modeling dry friction dampers by either Coulomb friction or equivalent viscous damping. A second improvement is the facility to express the response of the system in either time or

frequency domain. The computer simulation shows that the critical roll mode speed of a representative 70-ton box **car** is around 17.5 mph. The maximum **car body** roll angle is 11.4 degrees peak to peak, the maximum wheel load is 69,000 lb/wheel, and wheel lift durations are 0.2-0.4 sec. For a specific freight element near the roof maximum lateral accelerations of 1.5 g peak to peak at 0.64 Hz were calculated. At 50 mph, this value becomes 0.2 g at 2 Hz. Vertical acceleration of 0.1 g at 1.25 Hz is computed for **freight** near the **car body center** of **gravity** at 50 mph. The mathematical model can be used for parametric studies on designs of the **car body** and **truck** . Cushioning requirements for **freight** /package systems subjected to vibrations inside a **freight car** can also be established.

Descriptors: ***Freight cars** ; * **Cargo** ; *Dynamic response; Computerized simulation; Railroad trains; **Cargo** transportation; Damage; Mathematical models; Computer programs; Equations of motion

Identifiers: NTISDOTFRA

Section Headings: 85I (Transportation--Railroad Transportation)

12/5/32 (Item 4 from file: 144)

DIALOG(R)File 144:Pascal
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13463945 PASCAL No.: 98-0160470

Prediction of axle loads induced by sugarcane transport vehicles using statistical and neural-network models

KANALI C L

College of Agriculture, Osaka Prefecture University, 1-1, Gakuen-cho, Sakai 593, Osaka, Japan

Journal: Journal of agricultural engineering research, 1997, 68 (3) 207-213

ISSN: 0021-8634 CODEN: JAERA2 Availability: INIST-4708; 354000077608620040

No. of Refs.: 13 ref.

Document Type: P (Serial) ; A (Analytic)

Country of Publication: United Kingdom

Language: English

Data were collected for trailers transporting single bundle and loose sugarcane, respectively, to develop **models** for predicting axle **loads** induced by sugarcane transport vehicles. Based on a statistical approach, linear-regression analysis was performed on the data to relate the axle load with the **payload** for each **trailer** . A back-propagation neural network was trained to predict the induced axle loads, with a network consisting of two, eight and two processing units in the input, hidden and output layers, respectively. Input to the network were payloads and empty trailer axle loads. The output corresponded to the measured trailer and tractor rear-axle loads. Using a +- 5% residual error interval, the statistical and neural-network models attained over 85% prediction for trailer axle **loads** . The statistical and neural-network **models** achieved 85% prediction for tractor rear-axle load induced by loose sugarcane trailers. On the other hand, the neural-network model achieved 70% prediction as compared with 65% prediction achieved by the statistical **model** for tractor rear-axle **load** induced by single-bundle trailers. Since the neural network and statistical models had residual error standard deviations of 2.6 and 4.0%, respectively, for single bundle trailers, and 1.2 and 2.1%, respectively, for loose sugarcane trailers. the former model attained more uniform prediction for trailer axle **loads** than the later **model** .

18/5/4 (Item 4 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)
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07391381 E.I. No: EIP96043153693
Title: Modelling distribution storage water quality: an analytical approach
Author: Mau, Russell E.; Boulos, Paul F.; Bowcock, Robert W.
Corporate Source: Municipal Services Dep, Pasadena, CA, USA
Source: Applied Mathematical Modelling v 20 n 4 Apr 1996. p 329-338
Publication Year: 1996
CODEN: AMMODL ISSN: 0307-904X
Language: English
Document Type: JA; (Journal Article) Treatment: A; (Applications); T; (Theoretical)
Journal Announcement: 9606W4
Abstract: An explicit algorithm is developed for use in modelling water quality within distribution system storage tanks or reservoirs with the resulting model closely simulating the dynamics of mixing of dissolved substances. The model is predicated on material mass balance that accounts for transport, mixing, and kinetic reaction processes while inherently representing physically based phenomena such as short-circuiting and stagnation zones for all types of distribution storage facilities. The performance of the model is illustrated by application to actual tank data taken from a previous paper. The model-generated results show a good degree of correlation with the observed field measurements. The methodology should prove to be a valuable tool for managing water quality in water distribution systems. (Author abstract) 17 Refs.
Descriptors: *Mathematical models; Water distribution systems; Water quality; Water **tanks** ; Reservoirs (water); Computer **simulation** ; **Mass** transfer; Mixing; Reaction kinetics; Correlation methods
Identifiers: **Distribution** storage; Material **mass** balance equation; Dissolved substances; Stagnation zones
Classification Codes:
446.1 (Water Supply Systems); 445.2 (Water Analysis); 619.2 (Tanks); 441.2 (Reservoirs); 723.5 (Computer Applications)
921 (Applied Mathematics); 446 (Waterworks); 445 (Water Treatment); 619 (Pipes, Tanks & Accessories); 441 (Dams & Reservoirs); 723 (Computer Software)
92 (ENGINEERING MATHEMATICS); 44 (WATER & WATERWORKS ENGINEERING); 61 (PLANT & POWER ENGINEERING); 72 (COMPUTERS & DATA PROCESSING)

18/5/7 (Item 7 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)
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04541379 E.I. Monthly No: EI8407065848 E.I. Yearly No: EI84049286
Title: PHYSICAL MODEL AND FORTRAN IV PROGRAM TO SIMULATE **BED-** LOAD **GRAIN-SIZE** DISTRIBUTIONS **IN UNIDIRECTIONAL TURBULENT FLOW.**
Author: Bridge, John S.
Corporate Source: State Univ of New York at Binghamton, Dep of Geological Sciences, Binghamton, NY, USA
Source: Computers & Geosciences v 8 n 1 1982 p 37-44
Publication Year: 1982
CODEN: CGOSDN ISSN: 0098-3004
Language: ENGLISH
Journal Announcement: 8407
Abstract: A physical model of the size- **distribution** of bed- **load** sediments transported by unidirectional turbulent flow is described. A given bed shear stress is capable of transporting as bed-load that range of sediment sizes which can be entrained but not suspended. Weight of sediment transported in that size range is the product of transport rate, derived from a theoretical bed-load function, and the time of operation of the bed shear stress, obtained from integration of a frequency distribution of instantaneous values. The required grain-size distribution results from integration across the complete shear stress range. A description and full listing of the FORTRAN program is supplemented by input requirements and a sample run. 17 refs.
Descriptors: *FLOW OF FLUIDS--*Sediment Transport; COMPUTER PROGRAMMING

LANGUAGES--FORTRAN; COMPUTER PROGRAMS
Identifiers: BED- **LOAD** ; GRAIN-SIZE **DISTRIBUTIONS**
Classification Codes:
631 (Fluid Flow & Hydrodynamics); 723 (Computer Software)
63 (FLUID DYNAMICS & VACUUM TECHNOLOGY); 72 (COMPUTERS & DATA PROCESSING)

18/5/8 (Item 8 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)
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04186146 E.I. Monthly No: EI8205037778 E.I. Yearly No: EI82019201
Title: COMPUTER SIMULATION OF WEIGHT DISTRIBUTIONS OF SPHERICAL-PARTICLE BEDS ON THE BOTTOM OF A CONTAINER .
Author: Gotoh, Keishi; Chiba, Toshifumi; Suzuki, Akira
Corporate Source: Hokkaido Univ, Hakodate, Jpn
Source: International Chemical Engineering v 22 n 1 Jan 1982 p 107-115
Publication Year: 1982
CODEN: INCEAX ISSN: 0020-6318
Language: ENGLISH
Journal Announcement: 8205
Abstract: The **weight distribution** at the bottom of a packed bed of spherical particles was simulated by a computer. The particles were supplied either from the middle of the container, with and without walls, or from the periphery of the container. Only the vertical particle load was taken into account; transverse forces were ignored, except those related to contact between the particles and the wall. The average radial number-concentration of particles within the container was fairly uniform and independent of the type of bed. From the microscopic viewpoint, however, the structure of the bed was such that the load of each particle extended a long way out from the particle-feed position. This shows the importance of anisotropy in the structure of the packing as a factor controlling the **weight distribution** at the bottom. 9 refs.

30/5/17 (Item 17 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)
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05874963 E.I. Monthly No: EIM9003-010505
Title: Computer aided design **of unit** loads .
Author: Daboub, Juan J.; Trevino, Jaime; Liao, Hsuan-Hui; Wang, Jun
Corporate Source: North Carolina State Univ, NC, USA
Conference Title: Proceedings of the 11th Annual Conference on Computers and Industrial Engineering
Conference Location: Orlando, FL, USA Conference Date: 19890315
E.I. Conference No.: 12784
Source: Computers & Industrial Engineering v 17 n 1-4 1989. p 274-280
Publication Year: 1989
CODEN: CINDDL ISSN: 0360-8352
Language: English
Document Type: JA; (Journal Article) Treatment: E; (Economic/Cost Data/Market Survey)
Journal Announcement: 9003
Abstract: The unit load design problem includes the selection of the best pallet or container size, the best pallet or container layout, and the best number of parts per pallet or **container** . Three different approaches to solve the unit **load** design problem are identified in this paper and a new procedure is proposed: **Computer** Aided Design of Unit Loads (CADUL I). Using CADUL I, unit loads are designed considering system constraints (i.e., rack opening dimensions, aisle width, trailer-truck container dimensions, product crushability constraints, material handling equipment stacking capability and weight capacity) and a cost function that includes handling, storage, transportation, and pallet or container costs. (Edited author abstract) 18 Refs.
Descriptors: *MATERIALS HANDLING--*Loading; **COMPUTER** AIDED DESIGN; INDUSTRIAL ENGINEERING
Identifiers: COMPUTERIZED UNIT LOAD DESIGN; **SOFTWARE** PACKAGE CADUL I; CADUL I FLOW DIAGRAM
Classification Codes:
691 (Bulk Materials Handling); 723 (Computer Software); 912 (Industrial Engineering & Management)
69 (MATERIALS HANDLING); 72 (COMPUTERS & DATA PROCESSING); 91 (ENGINEERING MANAGEMENT)

30/5/24 (Item 24 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)
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04186146 E.I. Monthly No: EI8205037778 E.I. Yearly No: EI82019201
Title: COMPUTER SIMULATION **OF** WEIGHT **DISTRIBUTIONS OF SPHERICAL-PARTICLE BEDS ON THE BOTTOM OF A CONTAINER.**
Author: Gotoh, Keishi; Chiba, Toshifumi; Suzuki, Akira
Corporate Source: Hokkaido Univ, Hakodate, Jpn
Source: International Chemical Engineering v 22 n 1 Jan 1982 p 107-115
Publication Year: 1982
CODEN: INCEAX ISSN: 0020-6318
Language: ENGLISH
Journal Announcement: 8205
Abstract: The **weight** distribution at the bottom of a packed **bed** of spherical particles was simulated by a **computer** . The particles were supplied either from the middle of the container, with and without walls, or from the periphery of the **container** . Only the vertical particle **load** was taken into account; transverse forces were ignored, except those related to contact between the particles and the wall. The average radial number-concentration of particles within the container was fairly uniform and independent of the type of bed. From the microscopic viewpoint, however, the structure of the **bed** was such that the **load** of each particle extended a long way out from the particle-feed position. This shows the importance of anisotropy in the structure of the packing as a factor controlling the weight distribution at the bottom. 9 refs.
Descriptors: ***COMPUTER** SIMULATION
Identifiers: PARTICLE BEDS
Classification Codes:

723 (Computer Software)
72 (COMPUTERS & DATA PROCESSING)

30/5/25 (Item 25 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)
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04025448 E.I. Monthly No: EI8106046843 E.I. Yearly No: EI81013735
Title: CAD **METHOD FOR MINIMUM** WEIGHT **DESIGN OF ROTATIONALLY SYMMETRIC** VESSELS .
Author: Boes, R.
Corporate Source: Fed Environ Agency, Berlin, Ger
Source: CAD 80 Int Conf and Exhib on Comput in Des Eng, 4th, Brighton, Sussex, Engl, Mar 31-Apr 2 1980 Publ by IPC Sci and Technol Press, Guildford, Surrey, Engl, 1980 p 753-759
Publication Year: 1980
Language: ENGLISH
Journal Announcement: 8106
Abstract: In civil engineering thickwalled rotationally symmetric vessels with fixed designed internal forms find varied usage. A CAD method is presented which links the computation of these vessels by finite elements with a method of nonlinear programming of their weight. Loadings are internal and outer pressure, temperature and prestressing. 2 refs.
Descriptors: *CIVIL ENGINEERING--* **Computer** Aided Design
Identifiers: VESSELS
Classification Codes:
723 (Computer Software); 901 (Engineering Profession)
72 (COMPUTERS & DATA PROCESSING); 90 (GENERAL ENGINEERING)

30/5/26 (Item 26 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)
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03919810 E.I. Monthly No: EI8005035093 E.I. Yearly No: EI80013448
Title: LHDSIM -- A LOAD - HAUL **-DUMP** SIMULATOR **FOR ROOM-AND-PILLAR MINING OPERATIONS.**
Author: Beckett, L. A.; Haycocks, C.; Lucas, J. R.
Corporate Source: Va Polytech Inst & State Univ, Blacksburg
Source: Appl of Comput and Oper Res in the Miner Ind, 16th, Tucson, Ariz, Oct 17-19 1979 Publ by Soc of Min Eng, AIME, New York, NY, 1979 p 408-413
Publication Year: 1979
Language: ENGLISH
Journal Announcement: 8005
Abstract: A **computer** simulation method was applied to the prediction and optimization of performance of systems using **load - haul** -dump machines (LHDs). Specifically, an LHD simulator was designed for analysis of haulage and face operations in room-and-pillar production systems, both continuous and conventional. 10 refs.

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File 275:Gale Group Computer DB(TM) 1983-2007/May 01
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File 621:Gale Group New Prod.Annou.(R) 1985-2007/Apr 30
         (c) 2007 The Gale Group
File 636:Gale Group Newsletter DB(TM) 1987-2007/May 01
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File  16:Gale Group PROMT(R) 1990-2007/May 01
         (c) 2007 The Gale Group
File 160:Gale Group PROMT(R) 1972-1989
         (c) 1999 The Gale Group
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         (c) 2007 Dialog
File 369:New Scientist 1994-2007/Dec W2
         (c) 2007 Reed Business Information Ltd.

Set     Items   Description
S1    3236567   LOAD OR LOADS OR MASS OR WEIGHT
S2      33754   S1(5N)(MODEL???? OR SIMULAT? OR (THREE OR MULTI)()DIMENSIO-
             N? OR 3D OR 3()D OR CAD OR CAM OR COMPUTER()AIDED()(DESIGN OR
             MANUFACTURING))
S3    3540162   BODY OR HAUL???? OR TOW OR TOWS OR TOWED OR TOWING OR CARR-
             IAGE OR CARRY??? OR BED OR DECK OR CARGO OR FREIGHT OR LOADIN-
             G()AREA OR PAYLOAD OR WAGON OR CHASSIS
S4    7496637   TRUCK? ? OR VEHICLE? ? OR TRAILER? ? OR AUTOMOBILE? ? OR C-
             AR? ?
S5    2029684   CONTAINER? ? OR BOTTLE? ? OR VESSEL? ? OR TANK? ? OR RECEP-
             TACLE? ? OR DUMP()BODY OR BED OR CARGO OR PAYLOAD
S6       9770   CENTER(3W)GRAVITY
S7      73395   S1(5N)(DISTRIBUT? OR SPREAD??? OR FILL???)
S8     243791   S3(7N)S4
S9         41   S2(100N)S8(100N)S6:S7
S10        35   RD  (unique items)
S11        21   S10 NOT PY=2000:2007
S12      1142   DUMP()(BODY OR BODIES)
S13         3   S2(10N)S12
S14         3   RD  (unique items)
S15     11474   S1(5N)(MODELLING OR MODELLED OR SIMULAT? OR (THREE OR MULT-
             I)()DIMENSION? OR 3D OR 3()D OR CAD OR CAM OR COMPUTER()AIDED-
             ()(DESIGN OR MANUFACTURING))
S16       163   S15(10N)S5
S17        28   S16 AND S6:S7
S18        25   RD  (unique items)
S19        14   S18 NOT PY=2000:2007
S20       129   RD S16  (unique items)
S21        52   S20 NOT (S11 OR S14 OR S19 OR PY=2000:2007)
```

11/3,K/1 (Item 1 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
(c) 2007 The Gale Group. All rts. reserv.

01314071 SUPPLIER NUMBER: 07736602 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Design analysis: beyond FEA; the selection of tools for analyzing designs just keeps growing. (finite-element analysis)
Robinson, Phillip
Computer Graphics World, v12, n10, p38(8)
Oct, 1989
ISSN: 0271-4159 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 4083 LINE COUNT: 00321

... is built?
On a dusty field in the Midwest, observers watch a huge new military **trailer** bounce over rutty terrain while **carrying** a tank, nervously hoping the **trailer** won't flip. Any army general watching the display wonders how thoroughly the design was...

...immediate, three-dimensional view of an intended product and makes it possible to calculate some **mass** properties of the **model** --such as the **center** of **gravity** or moments of inertia. FEA programs, on the other hand, analyze the stresses and strains...

11/3,K/2 (Item 2 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
(c) 2007 The Gale Group. All rts. reserv.

01297940 SUPPLIER NUMBER: 07301716 (USE FORMAT 7 OR 9 FOR FULL TEXT)
CAD sets the pace. (computer-aided design of cars in the Indianapolis 500, includes related article titled 'CART writes the rules')
Beckert, Beverly A.
Computer-Aided Engineering, v8, n5, p28(4)
May, 1989
ISSN: 0733-3536 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 1777 LINE COUNT: 00136

... Wind tunnel tests are conducted six days each month throughout the year.
Shaping up the **Car**
With work on the **chassis** , engine cover, and side pods underway, the design team turns its attention to the car the suspension can be affected by various factors including **weight distribution** , height of **center gravity** , roll center heights, loading conditions, and tire characteristics.
The CV system is used extensively to...

...caster, bump, steer, and wheel rate as 3D models of the suspension are put under **simulated loads** of racing conditions.
According to Brown, the CV system also enables other components to be ...

11/3,K/3 (Item 1 from file: 621)
DIALOG(R)File 621:Gale Group New Prod.Annou.(R)
(c) 2007 The Gale Group. All rts. reserv.

01190375 Supplier Number: 42915465 (USE FORMAT 007 FOR FULLTEXT)
NEW CAT D250D ARTICULATED TRUCK FEATURES NEW BODY STYLING, NEW FUEL EPPICIENT ENGINE, NEW SUSPENSION SYSTEM AND INCREASED OPERATOR COMFORT
News Release, pN/A
April 15, 1992
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 604

... 9.9 m3. This was achieved by slight body shape changes.

To provide a low **center** of **gravity**
and allow the truck to be loaded
by a number of loading systems, the Cat D250D retained the low **load** -
over height of the former **model** .

A bolt-on front spill guard is standard to protect the hitch area
from material spillage. The standard body has exhaust-heat
adaptability integrated into the **body** design.

Cat 3116 DITA Diesel Engine

The **truck** features the new fuel-efficient Cat 3116 DITA (direct
injection, turbocharged and after cooled) diesel...

...This allows all four
rear wheels to maintain constant ground contact for traction and
equal **load** **distribution** .

The Cat D250D articulated truck is equipped with six 20.5R25 tires, a
new non...

...feel. No adjustment is required for
the steering system and it has noymechanical linkage. The **truck** can
be **towed** without disconnecting any steering linkage.

Service brakes now incorporate a full-power hydraulic system. The...

...that is mounted on the transmission and is set
with a push button.

BRIEF SPECS

Model	Payload	Capacity	**Weight**	
HP/kW	Top Speed	Gears/Axles		
	T/t	Heaped	Empty	mph/kph
		yd3/m3	lb...	

11/3,K/4 (Item 2 from file: 621)
DIALOG(R)File 621:Gale Group New Prod.Annou.(R)
(c) 2007 The Gale Group. All rts. reserv.

01190374 Supplier Number: 42915464 (USE FORMAT 007 FOR FULLTEXT)
NEW CAT D250D ARTICULATED TRUCK FEATURES NEW BODY STYLILNG, NEW FUEL EFFICIENT ENGINE, NEW SUSPENSION SYSTEM AND INCREAWED OPERATOR COMFORT.
News Release, p1
April 15, 1992
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 624

... Marketing Services
2001 Ruppman Plaza
Peoria, IL 61614

April 15, 1992

NEW CAT D250D ARTICULATED **TRUCK** FEATURES NEW BODY STYLILNG, NEW FUEL
EFFICIENT ENGINE, NEW SUSPENSION SYSTEM AND INCREAWED OPERATOR
COMFORT...

...D250D articulated truck
which replaces the former model Cat D250B articulated truck.

Body Design

The **truck** **body**
is a ribless design using high-yield steel of maximum
strength yet minimum weight. Extra...

...impact loading and abrasive materials.

To help prevent machine overloading and improve cycle times, the **body**

capacity of the Cat D250D articulated **truck** is reduced from 10 yd(3)/11 M(3) to 12.9 yd(3)/9.9 m(3). This was achieved by slight body shape changes.

To provide a low **center** of **gravity** and allow the truck to be loaded by a number of loading systems, the Cat D250D retained the low **load** - over height of the former **model** .

A bolt-on front spill guard is standard to protect the hitch area from material spillage. The standard body has exhaustheat adaptability integrated into the **body** design.

Cat 3116 DITA Diesel Engine

The **truck** features the new fuel-efficient Cat 3116 DITA (direct injection, turbocharged and after cooled) diesel...

...This allows all four rear wheels to maintain constant ground contact for traction and equal **load** **distribution** .

The Cat D250D articulated truck is equipped with six 20.5R25 tires, a new non...

...No adjustment is required for the steering system and it has no mechanical linkage. The **truck** can be **towed** without disconnecting any steering linkage.

Service brakes now incorporate a full-power hydraulic system. The...

...that is mounted on the transmission and is set with a push button.

			BRIEF SPECS		
Model	Payload	Capacity	**Weight**		
HP/kW	Top Speed	Gears/Axles			
	T/t	Heaped yd(3)/m...	Empty		mph/kph

11/3,K/5 **(Item 1 from file: 636)**
DIALOG(R)File 636:Gale Group Newsletter DB(TM)
(c) 2007 The Gale Group. All rts. reserv.

04139262 Supplier Number: 54306945 (USE FORMAT 7 FOR FULLTEXT)
Back to Basics:How to Match Bodies, Chassis, Equipment.
Trailer/Body Builders, pNA
Jan, 1999
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Newsletter; Trade
Word Count: 1634

... Under no circumstances should the weight exceed the rating of any axle. Nor should the **vehicle** weigh more than its GVWR when the body, equipment, and allowable payload are included.
Just...

...By knowing the GVWR of the truck, it is possible to determine how much the **truck** can **carry** . The GVWR can be found in the GVWR selector chart in the model section of...

...vehicle document, and on the certification label.
The next step is to determine the curb **weight** of the **model** and add that to the combined weights of the driver, passengers, **truck** **body** , and/or equipment. (The standard weight for passengers and drivers is 150 lb) The sum...to obtain the maximum allowable (net) payload.
After the maximum net payload is determined, a **weight** **distribution** calculation must be performed to ensure that the individual axle loads do not exceed the GAWRs and governmental weight laws and restrictions.
Center of **Gravity** How the truck performs when braking, as well as its ability to meet some Federal Motor Vehicle Safety Standards is affected

by its **center** of **gravity** . The **center** of **gravity** (CG) is the point at which the weight of the chassis, body/equipment, and payload...

...the first step is to establish the reference points for the horizontal, vertical, and lateral **center** of **gravity** measurements. Typically the horizontal CG is measured in relation to its distance from the front...

11/3,K/6 (Item 1 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2007 The Gale Group. All rts. reserv.

02427327 Supplier Number: 43195940
Truckin' Right: European road trucks respond to new regulations
World Mining Equipment, p8
August, 1992
Language: English Record Type: Abstract
Document Type: Magazine/Journal; Trade

ABSTRACT:
Europe: Trucking rules and their impact on the road **haulage vehicles** most commonly utilized for coal and mineral transport are examined. A new directive dealing with...

...alteration in legislation dealing with goods vehicles will be a raise in weights for medium **weight** trucks. Altering present truck **models** with 3 axles will be a challenge. Although the 25 m ton rating can be attained with good **weight distribution** with ease, going to the 26 m ton specification may need major adjustments. Detail is...

11/3,K/7 (Item 2 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2007 The Gale Group. All rts. reserv.

01935256 Supplier Number: 42469402 (USE FORMAT 7 FOR FULLTEXT)
Mercedes-Benz puts full-size V8 power into mid-size 400E: Responds to competitive pressures with performance
AutoWeek, p15
Oct 28, 1991
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 987

... which costs $20,000 more).
Although curb weight is 3660 pounds vs. the six-cylinder **model** 's 3315, the extra **weight** isn't too noticeable from behind the wheel. **Weight distribution** is 54/46 empty, moving rearward as people and **cargo** are added. The **car** understeers, but there's enough energy available under your right foot to rectify that situation...

...s also plenty of braking, as we discovered both on tight mountain roads and when **hauling** the **car** down from near top-speed during a drive in Germany. The speed governor limits the...

11/3,K/8 (Item 3 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2007 The Gale Group. All rts. reserv.

01328474 Supplier Number: 41564682
Freightliner entry boasts improved severe-duty capabilities
Automotive News, v0, n0, p18
Sept 24, 1990
Language: English Record Type: Abstract
Document Type: Magazine/Journal; Tabloid; Trade

ABSTRACT:
...a truck or as a tractor. The vehicle is meant to offer improved front axle **load distribution** and manueuverability. The **model** has a set-back front axle for maximum forward **weight distribution** and has a tighter turning radius. Reportedly, weight-saving materials such as the aluminum

cab permitted the firm to engineer a **vehicle** that has improved fuel economy and better **payload** capacity. Features of the model are discussed.

11/3,K/9 (Item 1 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2007 The Gale Group. All rts. reserv.

08525033 SUPPLIER NUMBER: 18024285 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Industrial lift truck accidents: why they happen; how they can be prevented.
Auguston, Karen
Modern Materials Handling, v51, n2, p42(4)
Feb, 1996
ISSN: 0026-8038 LANGUAGE: English RECORD TYPE: Fulltext; Abstract
WORD COUNT: 3671 LINE COUNT: 00289

... not much more difficult to operate than other vehicles, but they do have this unique, **three - dimensional** characteristic of lifting a **load** up high."
Despite having a higher **center** of **gravity** than a car, lift trucks are not particularly susceptible to tipping over. In fact, R...

...lifting a multi-ton load high up in the air, one would think that lift **trucks** are tipped over most often when **carrying** loads. But that's not the case.
"Operators tend

11/3,K/10 (Item 2 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2007 The Gale Group. All rts. reserv.

08289317 SUPPLIER NUMBER: 17634332 (USE FORMAT 7 OR 9 FOR FULL TEXT)
New trailers for 1996.(1996 Trucks and Trailers)(Cover Story)
Landberg, Lynn
Construction Equipment, v92, n4, p44(5)
Oct, 1995
DOCUMENT TYPE: Cover Story ISSN: 0192-3978 LANGUAGE: English
RECORD TYPE: Fulltext; Abstract
WORD COUNT: 766 LINE COUNT: 00064

... weights. Trailers are designed to handle load capacities from 65 to 200 tons.
Handles Unique **Hauls**
The new Specialized Series **trailers** from Rogers Bros. handle unique **hauling** situations and satisfy stringent government roadway and bridge regulations. This seven-axle, 75-ton model...

...high-strength steel in a tandem booster axle, and tandem "helper dolly" configuration to evenly **distribute** a concentrated **load** across a greater number of axles.
Shorter for Tighter Turns
Set up as a short **trailer** for tight turns, the Travis T4 **hauls** 25 tons legal payload and can bridge 80,000 pounds with the truck. Options include...

...with centrifuse drums, aluminum wheels, various tarps, and lengths of 22 to 26 feet. The **trailer** can be used to **haul** asphalt or aggregate.
Trailer Cuts Weight
The redesigned 35-ton "S" series **trailer** line from Talbert has maintained its **carrying** capacity while. dropping 1,960 pounds of empty weight. Features include the popular Hydroneck, lightweight...

...a gas engine power package.
Four-Axle Version Offered
Available in two or three axle **models** , **Load** King controlled horizontal discharge semi-trailers range in volume from 20 to 30 cubic yards...

...to a roller chain with articulating flights and abrasion-resistant lower hopper sides.

Half-Round **Body** Adds Strength
Demolition end dump **trailer** , the Ranco Anvil, has a **body** that is a constant radius half-round shape. This makes it stronger, lighter and more ...
...larger hauling capacity, greater lifting capacity, longer bridge length, and easier maintenance.
Flexible Load Angle
Load angle flexibility on the Landoll **Model** 660 provides an angle as gradual as 6.5 degrees for equipment such as pavers, or as steep as 15 degrees for unloading containerized **freight** . The **trailer** is available in a 48-feet length and features optional dock level hydraulic legs to...

...to 57 inches off a dock. Also featured is a specially designed undercarriage for absolute **weight distribution** between axles.
Hydraulic Conveyor Floor
New lightweight, all-aluminum conveyor **trailer** from Warren **hauls** a variety of products. Model ACT unloads bulk material from the rear through a hydraulically...

...weighs approximately 10,000 pounds.
One-Piece Main Frame
Redesigned tag-a-long pintle hitch **trailers** from Redi **Haul** feature a continuous one-piece main frame, stronger one-piece front bulkhead, lower deck height...

11/3,K/11 (Item 3 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
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07616325 SUPPLIER NUMBER: 16538974 (USE FORMAT 7 OR 9 FOR FULL TEXT)
EUROSID-1 vs BIOSID. (automobile side-impact dummies)
Automotive Engineering, v102, n12, p35(6)
Dec, 1994
ISSN: 0098-2571 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 3492 LINE COUNT: 00280

... rear doors. An onboard data-acquisition system was mounted in the vehicle's trunk, with **weight** and **weight distribution** adjusted to match the previous tests.
Moving deformable barrier--The test vehicle was impacted on...

...entire barrier moves with a 26-27 [degrees] crab angle toward the rear of the **vehicle** .
The moving barrier was **towed** toward the test **vehicle** and released at a stabilized velocity about 450 mm from the test vehicle, so that...

...1 km/h. The barrier cart was instrumented with a triaxial accelerometer package at its **center** -of- **gravity** and with lateral and longitudinal accelerometers on its rear crossmember.
The dummies--Production EUROSID-1...
...The dummies, designated A and B, had the latest available instrumentation including three Denton Inc. **Model** 2631 abdominal **load** cells. They were calibrated before and after testing at the Transportation Research Center, and were...

11/3,K/12 (Item 4 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2007 The Gale Group. All rts. reserv.

07506912 SUPPLIER NUMBER: 15713747 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Tow-ing your weight around: it's a profitable customer service. (alignment requirements of customers who pull trailers)(includes related article)
Mavrigian, Mike
Modern Tire Dealer, v75, n8, p38(2)
August, 1994
ISSN: 0026-8496 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 1323 LINE COUNT: 00102

... but towing customers probably have a more urgent need, based on their load applications.

Under **towing** conditions, new vehicles as well as old ones may need replacement rear springs.
Vehicles with...

...as levers that help re-distribute the tongue weight toward the nose of the tow **vehicle** .
The forward nose of each bar pivots inside a cup socket at each side of...

...the rig rides more level and handles better.
Even if the ride attitude of the **tow** **vehicle** appears to be level and correct, the wheel alignment of the vehicle should be checked...

...probably won't have that luxury.
The next best thing is to simulate the expected **cargo** weight and tongue weight of the loaded **trailer** .
Remember to consider the variables. The **vehicle** may be **towing** a boat, a **car** , a camper, or trailering a team of horses. Accurately determining the tongue weight can be...

...guessing at the customer's final weight distribution.
Your best bet is to align the **vehicle** with as close to the actual rear- **cargo** weight as possible.
Aligning the front wheels with even a ballpark amount of rear weight ...

...ignoring the situation altogether.
If you're lucky enough to have the customer deliver the **vehicle** with the **cargo** already loaded and the loaded **trailer** attached, you should examine the trailer hookup and make your best guesstimate of the existing tongue weight load.
If you guess 150 pounds, then unhook the **trailer** , add 150 pounds of weight to the **cargo** as far rearward as possible in the **vehicle** , then drive it onto the alignment rack.
Be sure the customer is aware that once...

11/3,K/13 (Item 5 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2007 The Gale Group. All rts. reserv.

06506925 SUPPLIER NUMBER: 14346933 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Trailers go on weight-loss program.
Landberg, Lynn
Construction Equipment, v87, n6, p84(3)
June 15, 1993
ISSN: 0192-3978 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 1518 LINE COUNT: 00115

... of material-hauling trailers, as well as platform and other types of lighter-weight equipment- **hauling** **trailers** . But here to, **trailer** design becomes as important as weight reduction, so often a combination of steel and aluminum...

...a centerbeam load rating that is the same as the company's all-steel trailer **model** .
In addition to reducing **weight** using aluminum or redesigning the trailer frame, manufacturers have come up with other ways to...

...for example, offers an innovative concept called the Bridger that increases the weight of the **trailer** , but also increases the **payload** . To accomplish this seemingly contradictory effort, the rear axles slide out behind the trailer to...

...1,000 pounds to the tare weight, yet by increasing the bridge span and improving **weight** **distribution** , the payload can be increased by up to 6,000 pounds.
Another sliding axle concept...

...slides back into position providing a 10-foot spread. With the 10-foot spread, the **trailer** axles can legally **carry** 40,000 pounds.
Landoll has come up with a booster weight transfer control linkage

system...

11/3,K/14 (Item 6 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
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06479768 SUPPLIER NUMBER: 13978164 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Mixer truck update. (CP Exclusive)
Kelley, Ken
Concrete Products, v96, n5, p16(4)
May, 1993
ISSN: 0010-5368 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 1552 LINE COUNT: 00121

... whose strong points are listed as pinpoint accuracy of delivery, added payload because of better **weight distribution** and less jobsite labor needed.
Navistar International
Refined positioning of the front axles highlight recent...

...maneuverability have been added to the 5000 Series. In addition, a set-forward front axle **model** for better **weight distribution** has been added to the 5000 series. The 5000s, formerly known as Paystar models, are ...behind the cab provides a cool and quiet work space.
Like other manufacturers of complete **truck** and **body** packages, Oshkosh promotes the convenience of purchasing and receiving field support for both body and...

11/3,K/15 (Item 7 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2007 The Gale Group. All rts. reserv.

06134428 SUPPLIER NUMBER: 12702125 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Trucks for '93. (new models) (Special Report)
Candler, Julie
Nation's Business, v80, n10, p32(4)
Oct, 1992
CODEN: NBUSA ISSN: 0028-047X LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 2734 LINE COUNT: 00206

... s GVWR is up to 25,000 pounds, and its uses include pickup and delivery, **towing / car** carrier, ambulance, lawn **care** , and utility service for easier hand-loading.
For its rugged Class 4 Sierra 3500 HD...

...utilization of 26-foot and 28-foot bodies. It is intended for transporters of bulky **cargo** .
In response to growing demand for **vehicles** with the lowest possible loading height and maximum cubic feet of cargo space in the...

...its FD Series chassis.
Kenworth. The new T400B and T450B replace the T400A and T450 **models** for improved productivity, **load distribution** , and better turning. The new vehicles are 112 inches bumper-to-back-of-cab (BBC...

11/3,K/16 (Item 8 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2007 The Gale Group. All rts. reserv.

05892991 SUPPLIER NUMBER: 12304551 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Waste Expo '92 product review.
World Wastes, v35, n5, p18(6)
May, 1992
ISSN: 1064-8429 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 1273 LINE COUNT: 00111

... Inc. of Fraser, Mich., manufactures a complete line of roll-offs, including fully functional pup **trailers** , drop **deck trailers** and

conventional style **trailers** . Each meets federal bridge requirements for 80,000 GVW, in two-and three-axle combinations. A lighter **weight model** of 18,000 pounds is being reintroduced by the company as well. The trailer gives correct **weight distribution** on all axles. according to Dunright.
Fluid Systems
Bentofix Geosynthetic Clay Liners have been introduced...

11/3,K/17 (Item 9 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
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04610396 SUPPLIER NUMBER: 09178441 (USE FORMAT 7 OR 9 FOR FULL TEXT)
What to see at the show. (1990 International Concrete and Aggregates Show)
Rock Products, v93, n1, p42(12)
Jan, 1990
ISSN: 0035-7464 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 5849 LINE COUNT: 00466

... its set forward axle, the model T450 with its small turning radius and great forward **weight** , and the **model** T800 with its sloped hood for better visibility will be showcased.
247 - Komatsu - An HD465-3 model dump **truck** with a maximum **payload** of 51 tons and a heaped capacity of 44.7 cu yd will be featured...

...brakes, and a minimum turning radius of 31 ft, 2 in.
248 - Payhauler - Off-highway **trucks** with a sturdy rear dump **body** designed for the rock industry will be introduced in Booth 1619. Extra thick steel plating is built directly into the **truck** bodies of the 350C series **haulers** . The 50-ton **vehicle** has a 50/50 **weight distribution** , and its lower loading height (10 ft, 11 in.) makes it compatible with a variety...
...weights and haul cycle times, a load ejector that clears sticky materials out of the **truck bed** , and an assortment of bodies for specific hauling needs.
250 - Volvo GM - The Volvo GM...

11/3,K/18 (Item 10 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
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04503014 SUPPLIER NUMBER: 08321061 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Stress analysis optimizes truck structure.
Machine Design, v62, n2, p58(1)
Jan 25, 1990
ISSN: 0024-9114 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 280 LINE COUNT: 00023

... with 1,200 nodes correlated well with fatigue testing. Similar accelerated-fixture testing showed what **loads** were appropriate for the analytical **model** of the CH cab and structure.
A simplified shell-and-beam model of the CH...

...optimizing shape and stiffness for the frame crossmembers. Analysis showed that more rigidity would improve **load distribution** throughout the frame, but also could create high stresses in joints. FEA indicated that the...

...be reinforced. Physical testing confirmed the validity of the analysis.
PHOTO : Mack's CH 600 **truck** uses a new cab and **chassis** , optimized through FEA for maximum
PHOTO : strength-to-weight ratio.

11/3,K/19 (Item 11 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2007 The Gale Group. All rts. reserv.

04090132 SUPPLIER NUMBER: 07860521 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Side impact research.
Lim, G.G.; Paluszny, A.

Automotive Engineering, v97, n8, p34(6)
August, 1989
ISSN: 0098-2571 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 2611 LINE COUNT: 00208

... 5% in mutual crush also occurred (527 vs 679 mm).
Structural reinforcement of the target **car** **body** side increased its crush resistance, causing more crash energy to be absorbed in the collapse...

...44.5 g vs the simulation's 40.0 g.
This suggests that a three- **mass** **model** , in which the masses are interconnected by flexural springs (a three- **mass** beam **model**) and are so proportioned as to produce a bending frequency equal to the fundamental transverse...

...the two bumpers and B-post locations, and the assumption that the target car's **center** of **gravity** coincided with the B-post plane.
To determine the crush resistance of the body side...

...data obtained were used in an iterative process to "tune-up" a one-dimensional, six- **mass** , CRUSH II side impact **simulation** **model** (Fig. 3). The masses represent the bullet car mass, the bullet bumper beam mass, the target car door mass, the dummy chest/torso and pelvis/lower **body** masses, and that of the target **car** .
The nonlinear spring FRONT END, between the bullet car mass and the bumper beam mass...

11/3,K/20 (Item 1 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
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01813451 04-64442
NASCAR team rides FE-analyzed chassis
Anonymous
Mechanical Engineering v121n5 PP: 22 May 1999
ISSN: 0025-6501 JRNL CODE: MEG
WORD COUNT: 603

...TEXT: Marlin.

Erwin had two optimization goals: increasing the stiffness of the chassis and lowering the **center** of **gravity** for better handling and stability. Erwin set out to decrease chassis deflection in laboratory testing...

...1 /32-inch, using Algor's modeling and analysis tools. He went about lowering the **center** of **gravity** by modifying the frame structure and displacing weight from the **chassis** to the base of the **car** while maintaining the mandatory total weight of at least 3,400 lbs. required by Winston...

...pan sections were modeled with plate elements to create a combined 3-D beam/plate **model** . Erwin used two **load** cases to analyze overall deflection in his **model** . One **load** case contained lateral loading placed on the track bar mount, which connects the track bar to the rear subframe. For the other load case, opposing **loads** were applied to the beam **model** near the right front tire and on the right front center suspension to simulate the...

11/3,K/21 (Item 2 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2007 ProQuest Info&Learning. All rts. reserv.

00639907 92-54847
Trucks for '93
Candler, Julie
Nation's Business v80n10 PP: 32-36 Oct 1992
ISSN: 0028-047X JRNL CODE: NAB
WORD COUNT: 2379

...TEXT: utilization of 26-foot and 28-foot bodies. It is intended for transporters of bulky **cargo** .

In response to growing demand for **vehicles** with the lowest possible loading height and maximum cubic feet of cargo space in the...

...its FD Series chassis.

KENWORTH. The new T400B and T450B replace the T400A and T450 **models** for improved productivity, **load distribution** , and better turning. The new vehicles are 112 inches bumper-to-back-of-cab (BBC...

21/3,K/1 (Item 1 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
(c) 2007 The Gale Group. All rts. reserv.

01550462 SUPPLIER NUMBER: 13038809 (USE FORMAT 7 OR 9 FOR FULL TEXT)
A material handling solution for an air cargo facility. (RAPISTAN Demag designs material handling system)
Industrial Engineering, v24, n11, p24(2)
Nov, 1992
ISSN: 0019-8234 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 883 LINE COUNT: 00071

...ABSTRACT: customer. The system handles both small roll boxes for tractor trailer shipments and large bulk **cargo loads** . AutoSimulations Inc's **three - dimensional** graphical user interface software, called AutoMod, was chosen to model the design. The software is...

21/3,K/2 (Item 2 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
(c) 2007 The Gale Group. All rts. reserv.

01352461 SUPPLIER NUMBER: 08297076 (USE FORMAT 7 OR 9 FOR FULL TEXT)
CAD models the real thing: the Coca-Cola Company pumps out bottle designs with PC CAD.
Godden, Michael
Computer-Aided Engineering, v9, n3, p52(2)
March, 1990
ISSN: 0733-3536 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 1008 LINE COUNT: 00079

... all axes for orthographic projection. The application allows users to quickly and accurately construct a **container** , vary its height, and diameter, and use **3D mass** properties to calculate volume. Now, designs can be shaded and displayed in perspective with mass...

21/3,K/22 (Item 4 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2007 The Gale Group. All rts. reserv.

06776920 SUPPLIER NUMBER: 14593040 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Software arms engineers for thermal storage design demands.
Gibson, Tom
Air Conditioning, Heating & Refrigeration News, v190, n12, p3(2)
Nov 22, 1993
ISSN: 0002-2276 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 952 LINE COUNT: 00073

... program can be used to calculate th ice-melting rate and discharge temperature for specific **tank** geometries and cooling **loads** . It also **simulates** ice packing, so you can tell how much can be stored in a tank.
Presently...

21/3,K/52 (Item 6 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2007 ProQuest Info&Learning. All rts. reserv.

00480020 90-05777
Computer Aided Design of Unit Loads
Daboub, Juan J.; Trevino, Jaime; Liao, Hsuan-Hui; Wang, Jun
Computers & Industrial Engineering v17n1-4 PP: 274-280 1989
ISSN: 0360-8352 JRNL CODE: CIE

...ABSTRACT: the best pallet or container layout, and the best number of parts per pallet or **container** . A new procedure called **computer - aided design** of unit **loads** (CADUL I) is discussed. Using CADUL I, unit loads are designed taking into account system...

```
File 348:EUROPEAN PATENTS 1978-2007/ 200716
         (c) 2007 EUROPEAN PATENT OFFICE
File 349:PCT FULLTEXT 1979-2007/UB=20070426UT=20070319
         (c) 2007 WIPO/Thomson

Set     Items   Description
S1    1062971   LOAD OR LOADS OR MASS OR WEIGHT
S2      14776   S1(5N)(MODEL???? OR SIMULAT? OR (THREE OR MULTI)()DIMENSIO-
             N? OR 3D OR 3()D OR CAD OR CAM OR COMPUTER()AIDED()(DESIGN OR
             MANUFACTURING))
S3    1178808   BODY OR HAUL???? OR TOW OR TOWS OR TOWED OR TOWING OR CARR-
             IAGE OR CARRY??? OR BED OR DECK OR CARGO OR FREIGHT OR LOADIN-
             G()AREA OR PAYLOAD OR WAGON OR CHASSIS
S4     781283   TRUCK? ? OR VEHICLE? ? OR TRAILER? ? OR AUTOMOBILE? ? OR C-
             AR? ?
S5     646849   CONTAINER? ? OR BOTTLE? ? OR VESSEL? ? OR TANK? ? OR RECEP-
             TACLE? ? OR DUMP()BODY OR BED OR CARGO OR PAYLOAD
S6      11589   CENTER(3W)GRAVITY
S7      72349   S1(5N)(DISTRIBUT? OR SPREAD??? OR FILL???)
S8          1   S2(100N)(DUMP()(BODY OR BODIES))
S9      78662   S3(10N)S4
S10        18   S2(100N)S9(100N)S6:S7
S11       195   S2(7N)S5
S12         9   S11(100N)S6:S7
S13        21   S11/TI,AB,CM
S14       162   S2(100N)S9
S15       143   S14 NOT (S10 OR S12:S13)
S16        67   S15 AND PY=1963:1999
S17        29   S15 AND AC=US/PR AND AY=(1963:1999)/PR
S18        29   S15 AND AC=US AND AY=1963:1999
S19        29   S15 AND AC=US AND AY=(1963:1999)/PR
S20        92   S11 AND PY=1963:1999
S21        76   S11 AND AC=US/PR AND AY=(1963:1999)/PR
S22        77   S11 AND AC=US AND AY=1963:1999
S23        77   S11 AND AC=US AND AY=(1963:1999)/PR
S24         1   S16:S23 AND IC=G06T
S25       255   S2 AND IC=G06T
S26        48   S25/TI,AB,CM
S27        10   S26 AND PY=1963:1999
S28         9   S26 AND AC=US/PR AND AY=(1963:1999)/PR
S29         9   S26 AND AC=US AND AY=1963:1999
S30         9   S26 AND AC=US AND AY=(1963:1999)/PR
S31        14   S27:S30
```

10/3,K/3 (Item 3 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2007 EUROPEAN PATENT OFFICE. All rts. reserv.

00626834
Storage device with safety function
Bewahrungsvorrichtung mit einer Sicherheitsfunktion
Dispositif de rangement avec une fonction de securite
PATENT ASSIGNEE:
Kato Hatsujo Kaisha Ltd., (440451), 51 Iwai-cho Hodogaya-ku, Yokohama-shi Kanagawa-ken, (JP), (applicant designated states: DE;FR;GB)
INVENTOR:
Asano, Kazunori, 8-3, Zaimokuza 3-chome, Kamakura-shi, Kanagawa-ken, (JP)
LEGAL REPRESENTATIVE:
Lewald, Dietrich, Dipl.-Ing. (7571), Lewald . Grape . Schwarzensteiner Patentanwalte Rindermarkt 6, 80331 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 610882 A2 940817 (Basic)
EP 610882 A3 941228
EP 610882 B1 961120
APPLICATION (CC, No, Date): EP 94101891 940208;
PRIORITY (CC, No, Date): JP 939389 930212; JP 9346071 930212
DESIGNATED STATES: DE; FR; GB
INTERNATIONAL PATENT CLASS (V7): B60R-007/06; E05C-019/02;
ABSTRACT WORD COUNT: 306
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF2	1224
CLAIMS B	(English)	EPAB96	973
CLAIMS B	(German)	EPAB96	847
CLAIMS B	(French)	EPAB96	1075
SPEC A	(English)	EPABF2	5478
SPEC B	(English)	EPAB96	5641
Total word count - document A			6704
Total word count - document B			8536
Total word count - documents A + B			15240

...SPECIFICATION overrun of the cam member 1 in the reverse direction can be prevented because the **center** of **gravity** of the cam member 1 falls on the fixing shaft 7. Thus, the possibility of...

...in due consideration of the impact exerted to bear on the front side of an **automobile body** , the third embodiment has been developed in consideration of the impact exerted to bear on the rear side of an **automobile body** besides that affecting the front side.
When an **automobile carrying** the storage device receives an impact in the front side thereof, the inertial force which...

...to advance together with the pin member P and does not impose a very large **load** on the **cam** member 1 per se. When the automobile has some other vehicle collide therewith from behind...

...SPECIFICATION overrun of the cam member 1 in the reverse direction can be prevented because the **center** of **gravity** of the cam member 1 falls on the fixing shaft 7. Thus, the possibility of...

...constructional detail of a preferred cam member is shown, will be described below.
When an **automobile carrying** the storage device receives an impact in the front side thereof, the inertial force which...

...to advance together with the pin member P and does not impose a very large **load** on the **cam** member 1 per se. When the automobile has some other vehicle collide therewith from behind...

...with an obstacle, however, the housing H is made to move forward together with the **automobile body** , and the storage cabinet B supported in the housing H tends to remain at its...

10/3,K/13 (Item 8 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

(c) 2007 WIPO/Thomson. All rts. reserv.

00788172 **Image available**

PASSENGER AND FREIGHT CARRYING VEHICLE

VEHICULE DE TRANSPORT DE PASSAGERS ET DE MARCHANDISES

Patent Applicant/Assignee:
IAP INTERMODAL LLC, 700 Gottlob Auwaerter Drive, Lamar, CO 81052, US, US (Residence), US (Nationality)
Inventor(s):
GASPARD James G II, 539 Canyon View Drive, Golden, CO 80403, US,
DICK Harvey F, 324 County Road 15, Helfin, AL 36264, US,
Legal Representative:
CARSON W Scott (et al) (agent), Dorr, Carson, Sloan & Birney, P.C., 3010 E. 6th Avenue, Denver, CO 80206, US,

Patent and Priority Information (Country, Number, Date):
Patent: WO 200121435 A1 20010329 (WO 0121435)
Application: WO 2000US21642 20000807 (PCT/WO US0021642)
Priority Application: US 99154889 19990920
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 13921

Fulltext Availability:
Detailed Description
Claims

Detailed Description

... 1110, and 1120 on the other axles. As such, the retractable axle 600 increases the **freight hauling** capacity of the **vehicle** 1 00a (preferably up to 20,000 lbs).

Table 11 illustrates the estimated weight (in...

...by the weight of the passenger area 120a and the freight area 130a and associated **loads**). The **three - dimensional** region 840 and the axle and wheel arrangement described above, including the retractable axle 600...

...e., lowering the retractable axle 600 results in a force variation due to a changed **weight distribution** on the axles), maintain the structural integrity of the vehicle 100a under the various loading...

...provided and variously arranged. Likewise, additional retractable axles can be used in other embodiments, whereas **vehicles carrying** lighter loads need not have a retractable axle at all (see the embodiment of Figure...

...e.g., Detroit Diesel Series 60) is preferably positioned at the rear portion of the **vehicle** 100a beneath the **freight** area 130a (Figures 7 and 11). In such an embodiment, the engine 740 is disposed...

Claim

... said retractable axle when said retractable axle is in said extended position to increase the **freight hauling** capacity of said **vehicle** .

50 A **vehicle** comprising:
a passenger area;

a **freight** area to support a load when placed thereon, said freight area integrally connected into a three-dimensional region in the rear of said passenger area so as to **distribute** forces from said **load** over said **three** - **dimensional** region;
a front set of wheels beneath the front portion of said passenger area;
at...

...set of retractable
wheels movable between a retracted position and an extended position.

54 A **vehicle** comprising:
a passenger area;
a **freight** area to support a load when placed thereon, said freight area integrally connected to said...

10/3,K/15 (Item 10 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2007 WIPO/Thomson. All rts. reserv.

00430364 **Image available**
MATTRESS FOR RELIEVING PRESSURE ULCERS
MATELAS PERMETTANT DE SOULAGER LES PLAIES DUES A LA PRESSION
Patent Applicant/Assignee:
GAYMAR INDUSTRIES INC,
Inventor(s):
WORTMAN Ronald D,
RECHIN Michael P,
FLICK Roland E,
WHITNEY John K,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9820828 A1 19980522
Application: WO 97US20508 19971110 (PCT/WO US9720508)
Priority Application: US 96748209 19961112
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU
IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL
PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW GH KE LS MW SD
SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT
LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 10407

Fulltext Availability:
Detailed Description

Detailed Description
... New
York, the assignee of the present invention, provides a pressurized cushion known as Sof- **Care** Plus long-term **bed** cushion (Gaymar model SC-427) for pressure relief. This cushion, which has been supported by...

...is transferred through the
interconnecting channels to redistribute the patient's weight over the entire **bed** cushion. A three-layer cushion known as Sof- **Care** II cushion (Gaymar **model** SC 440) continually redistributes patient **weight** through 300 air- **filled** chambers and has hand grips at the side of the cushion to assist in patient...

10/3,K/18 (Item 13 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00191943
ROADWAY SIMULATOR RESTRAINT

SYSTEME DE LIMITATION DE MOUVEMENT POUR SIMULATEUR DE VOIE DE CIRCULATION ROUTIERE

Patent Applicant/Assignee:
MTS SYSTEMS CORPORATION,
Inventor(s):
LANGER William J,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9109291 A1 19910627
Application: WO 90US7023 19901130 (PCT/WO US9007023)
Priority Application: US 89627 19891220
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AT BE CH DE DK ES FR GB GR IT JP KR LU NL SE
Publication Language: English
Fulltext Word Count: 5139

Fulltext Availability:
Detailed Description

Detailed Description

... is, the beams retrain rotation of the vehicle about a vertical axis passing through the **center** of **gravity** , The linkage just described permits free movement in roll about the longitudinal axis, and in pitch (rotation about a lateral axis passing through the **center** of **gravity**) , and in vertical directions,

...rear coupling pin 75 that is attached to the bracket 75A fixed to the test **vehicle** **body** , The roll cylinder or actuator 100 is normally programmed to provide no restraint to the...

...introduced into the test vehicle at desired speeds, or when the roadways are steered,, to **simulate** roll **loads** in a curve or corner. This input again is through the longitudinal axis that passes through the test vehicle Is **center** of **gravity** , so that it simulates the responses of a vehicle when it is subjected to forces...

13/3,K/5 (Item 5 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2007 EUROPEAN PATENT OFFICE. All rts. reserv.

00738551
Procedure and device for simulating mass in a fixed test bench
Verfahren und Vorrichtung zur Massensimulation auf ortsfesten Prufstanden
Procede et dispositif de simulation de masse dans un banc d'essai fixe
PATENT ASSIGNEE:
Schenck Pegasus GmbH, (1703974), Industriegelande, 66571 Eppelborn, (DE), (Proprietor designated states: all)
INVENTOR:
Freitag, Gernot, Riedlingerstrasse 4, D-64283 Darmstadt, (DE)
LEGAL REPRESENTATIVE:
Brandt, Ernst-Ulrich, Dipl.-Phys., Dipl.-Ing. (52914), Schenck Pegasus GmbH, 64273 Darmstadt, (DE)
PATENT (CC, No, Kind, Date): EP 696729 A2 960214 (Basic)
EP 696729 A3 961113
EP 696729 B1 000412
APPLICATION (CC, No, Date): EP 94119567 941210;
PRIORITY (CC, No, Date): DE 4427966 940809
DESIGNATED STATES: DE; FR; GB; IT
INTERNATIONAL PATENT CLASS (V7): G01M-017/007; G01M-013/02; G01M-015/00; G01L-005/28
TRANSLATED ABSTRACT WORD COUNT: 137
ABSTRACT WORD COUNT: 143
NOTE:
Figure number on first page: NONE

LANGUAGE (Publication,Procedural,Application): German; German; German
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200015	732
CLAIMS B	(German)	200015	549
CLAIMS B	(French)	200015	796
SPEC B	(German)	200015	1666
Total word count - document A			0
Total word count - document B			3743
Total word count - documents A + B			3743

...ABSTRACT Translated)
Weight simulation method for loading system on e.g. motor vehicle test **bed**
The **weight simulation** involves a **load** device coupled force-wise to a test object, and is controlled, where its actual speed...

...ABSTRACT A2

Weight simulation method for loading system on e.g. motor vehicle test **bed**
The **weight simulation** involves a **load** device coupled force-wise to a test object, and is controlled, where its actual speed...

13/3,K/9 (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2007 WIPO/Thomson. All rts. reserv.

01411767 **Image available**
EASY LOADING CARGO RACK ASSEMBLY FOR VEHICLE
ENSEMBLE GALERIE POUR MARCHANDISES/MATERIEL A CHARGEMENT RAPIDE DESTINE A UN VEHICULE
Patent Applicant/Inventor:
TUCKER Timothy, 228 N. Goodman Street, Apt. 8, Rochester, New York 14607, US, US (Residence), US (Nationality), (Designated for all)
Legal Representative:
HALL William (agent), HISCOCK & BARCLAY, LLP, 2000 Hsbc Plaza, Rochester, New York 14604-2404, US
Patent and Priority Information (Country, Number, Date):
Patent: WO 200694078 A2 20060908 (WO 0694078)

Application: WO 2006US7316 20060302 (PCT/WO US2006007316)
Priority Application: US 2005658055 20050302
Designated States:
(All protection types applied unless otherwise stated - for applications 2004+)
AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LT LU LV MC NL PL PT RO SE SI SK TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 4963

Fulltext Availability:
Claims

Claim
... means for applying a tensile force between each of the handle ends and the respective **cam** ends that biases the **load** bars toward the secured fulcrum.

2. The **cargo** rack assembly of Claim 1, the fulcrum of each pivoting lever engaging a base bar...

13/3,K/13 (Item 5 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2007 WIPO/Thomson. All rts. reserv.

01119439 **Image available**
CARGO SECURING DEVICE
DISPOSITIF DE SECURISATION DE CARGAISON
Patent Applicant/Assignee:
BOMBARDIER TRANSPORTATION GMBH, Saatwinkler Damm 43, 13627 Berlin, DE, DE (Residence), DE (Nationality), (For all designated states except: US)
Patent Applicant/Inventor:
ERNST Andreas, Martinstrasse 16, 02906 Niesky, DE, DE (Residence), DE (Nationality), (Designated only for: US)
METZE Hans-Jurgen, Dorfstrasse 47, 02923 Trebus, DE, DE (Residence), DE (Nationality), (Designated only for: US)
WIELOCH Bertram, Comeniusstrasse 2, 02906 Niesky, DE, DE (Residence), DE (Nationality), (Designated only for: US)
NICOLIN Dr Johannes, Saatwinkler Damm 43, 13627 Berlin, DE, -- (Residence), -- (Nationality), (Designated only for: US)
Legal Representative:
AKERS Noel J (agent), Howrey, Simon, Arnold & White, City Point, 1 Ropemaker Street, London EC2Y 9HS, GB,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200441617 A2-A3 20040521 (WO 0441617)
Application: WO 2003EP12247 20031103 (PCT/WO EP03012247)
Priority Application: GB 200225763 20021105
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE SI SK TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) BW GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 4957

Fulltext Availability:
Claims

Claim
... 5 The cargo securing device according to any of claims 2 to 4, wherein the **load** release mechanism comprises a **cam** element.
1 3
. The **cargo** securing device according to any of Plaims 2 to 5, wherein the latch is biased...

...detent extending from the second face to engage with and transmit the force to the **cargo** surface, and the **load** release mechanism comprises a **cam** profile on the first face whereby a rotation of the securing member against the load...

13/3,K/19 (Item 11 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2007 WIPO/Thomson. All rts. reserv.

00306465 **Image available**
METHOD FOR MEASURING LOADS BEING DIRECTED TO STRUCTURES
METHODE DE MESURE DE CHARGES IMPARTIES A DES STRUCTURES
Patent Applicant/Assignee:
KOIVISTO Marja-Liisa,
KOIVISTO Vesa,
SUNDQVIST Jari,
Inventor(s):
KOIVISTO Vesa,
SUNDQVIST Jari,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9524616 A1 19950914
Application: WO 95FI133 19950310 (PCT/WO FI9500133)
Priority Application: FI 941153 19940310
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU JP KE KG KP KR
KZ LK LR LT LU LV MD MG MN MW MX NL NO NZ PL PT RO RU SD SE SG SI SK TJ
TT UA UG US UZ VN KE MW SD SZ UG AT BE CH DE DK ES FR GB GR IE IT LU MC
NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 6767

Fulltext Availability:
Claims

Claim
... points of measurement in the load bed are defined by a mathematical process which requires **modeling** of the **load** **bed** . This delays the application of the method, particularly in structures which have not been modeled...

13/3,K/20 (Item 12 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2007 WIPO/Thomson. All rts. reserv.

00275099 **Image available**
METHOD FOR WEIGHING A LOAD
PROCEDE DE PESAGE D'UNE CHARGE
Patent Applicant/Assignee:
KOIVISTO Vesa,
Inventor(s):
KOIVISTO Vesa,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9423275 A1 19941013
Application: WO 94FI115 19940328 (PCT/WO FI9400115)
Priority Application: FI 931417 19930329
Designated States:
(Protection type is "patent" unless otherwise stated - for applications

prior to 2004)
CA JP NO US AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
Publication Language: English
Fulltext Word Count: 3761

Fulltext Availability:
Claims
Claim
... r i
z e d in that in order to define the measuring points, the **load bed** is **modelled** for the element method processing.

4 A method according to claim 3, c h a...

...r i z e d
in that there are in advance formed a number of **load bed models** , such as truck **load bed models** , and the **modelling** is realized with these as the starting point.
5* A method according to any of...

31/3,K/1 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2007 EUROPEAN PATENT OFFICE. All rts. reserv.

01177422
Method for modeling graphical objects represented as surface elements
Verfahren zur Modellierung von durch Oberflachenelemente dargestellten grafischen Objekten
Methode pour modeliser des objets graphiques representes par des elements de surface
PATENT ASSIGNEE:
MITSUBISHI DENKI KABUSHIKI KAISHA, (208589), 2-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-8310, (JP), (Proprietor designated states: all)
INVENTOR:
Pfister, Hanspeter, 60 Park Street, Somerville Massachusetts 02143, (US)
Van Baar, Jeroen, Wierbalg 2906, 1788 VR. Den Helder, (NL)
Oosterbaan, Collin E., W.Ontzigtstraat 41, 2461 SK Langeraar, (NL)
LEGAL REPRESENTATIVE:
Pfenning, Meinig & Partner (100961), Mozartstrasse 17, 80336 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 1026638 A2 000809 (Basic)
EP 1026638 A3 020515
EP 1026638 B1 050316
APPLICATION (CC, No, Date): EP 99120308 991012;
PRIORITY (CC, No, Date): US 240278 990129
DESIGNATED STATES: DE; FR; GB
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS (V7): G06T-017/20; G06T-015/70
ABSTRACT WORD COUNT: 103
NOTE:
Figure number on first page: NONE

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200032	578
CLAIMS B	(English)	200511	654
CLAIMS B	(German)	200511	646
CLAIMS B	(French)	200511	754
SPEC A	(English)	200032	11950
SPEC B	(English)	200511	12023
Total word count - document A			12530
Total word count - document B			14077
Total word count - documents A + B			26607

...CLAIMS the object.
14. The method of claim 13 wherein the movement of the object is **modeled** by a **mass** -spring system wherein each surface element has mass, and each spring has associated elastic and...

...CLAIMS the object.
14. The method of claim 13 wherein the movement of the object is **modelled** by a **mass** -spring system wherein each surface element has mass, and each spring has associated elastic and...

31/3,K/2 (Item 2 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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01154836
MODELING AT MORE THAN ONE LEVEL OF RESOLUTION
VERFAHREN ZUR MODELLIERUNG IN MEHREREN AUFLOSUNGSSTUFEN
MODELISATION A PLUS D'UN NIVEAU DE RESOLUTION
PATENT ASSIGNEE:
SERVICES PETROLIERS SCHLUMBERGER, (253294), 42, rue Saint-Dominique, 75007 Paris, FR\(Proprietor designated states: , FR)
SCHLUMBERGER HOLDINGS LIMITED, (1189800), P.O. Box 71, Craigmuir Chambers , Road Town, Tortola, VG\(Proprietor designated states: , NL)
INVENTOR:

ASSA, Steven, B., The Crescent 8 Storeys Way, Cambridge, Cambridgeshire CB3 0AZ, (GB)
HAMMERSLEY, Richard, P., 3625 Duval Road, Number 1232, Austin, TX 78759, (US)
LU, Hong-Qian, 6401 Deer Hollow Lane, Austin, TX 78750, (US)
LEGAL REPRESENTATIVE:
Stoole, Brian David et al (36411), WesternGeco, Intellectual Property Law Department, Schlumberger House Buckingham Gate, Gatwick West Sussex RH6 0NZ, (GB)
PATENT (CC, No, Kind, Date): EP 1125254 A1 010822 (Basic)
EP 1125254 B1 040407
WO 2000019380 000406
APPLICATION (CC, No, Date): EP 99952954 990924; WO 99US22194 990924
PRIORITY (CC, No, Date): US 163075 980929
DESIGNATED STATES (Pub A): AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE; (Pub B): FR; NL
INTERNATIONAL PATENT CLASS (V7): G06T-017/20
NOTE:
No A-document published by EPO
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200415	3257
CLAIMS B	(German)	200415	3120
CLAIMS B	(French)	200415	3767
SPEC B	(English)	200415	14241
Total word count - document A			0
Total word count - document B			24385
Total word count - documents A + B			24385

...CLAIMS method of claim 1, 2, or 3 further comprising using a multiresolution representation to partially **load** the **model** .
5. The method of any of claims 1 through 4, wherein the multiresolution representation is...

...18, 19 to 20 further comprising logic means for using a multiresolution representation to partially **load** the **model** .
22. The computer system of any of claims 18 through 21, wherein the multiresolution representation...

...medium of claims 35, 36 or 37 further comprising using a multiresolution representation to partially **load** the **model** .
39. The computer readable medium of any of claims 35 through 38, wherein the multiresolution...

31/3,K/3 (Item 3 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2007 EUROPEAN PATENT OFFICE. All rts. reserv.

01103201
Object rendering system to produce X-ray-like images
Objektwiedergabesystem zur Erzeugung rontgenahnlicher Bilder
Systeme de rendu d'object pour produire des images de type rayons-x
PATENT ASSIGNEE:
MITSUBISHI DENKI KABUSHIKI KAISHA, (208589), 2-3, Marunouchi 2-chome Chiyoda-ku, Tokyo 100-8310, (JP), (Applicant designated States: all)
INVENTOR:
Walterman, Michael Thomas, 233 Belknap Road, Framingham, Massachusetts 01701, (US)
LEGAL REPRESENTATIVE:
Pfenning, Meinig & Partner (100961), Mozartstrasse 17, 80336 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 967578 A2 991229 (Basic)
EP 967578 A3 010404
APPLICATION (CC, No, Date): EP 99105844 990323;
PRIORITY (CC, No, Date): US 102260 980622
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS (V7): G06T-015/00; G06T-011/00
ABSTRACT WORD COUNT: 113

NOTE:
  Figure number on first page: 1A

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language   Update   Word Count
      CLAIMS A (English) 199952   767
      SPEC A   (English) 199952   3725
Total word count - document A   4492
Total word count - document B   0
Total word count - documents A + B   4492

...CLAIMS solids having nested surfaces defined by boundaries, each of said
      nested solids having a predetermined **mass** attenuation coefficient,
      said means for **simulating** passing an X-Ray beam through said object
      including means for simulating passing said simulated...

31/3,K/4   (Item 4 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2007 EUROPEAN PATENT OFFICE. All rts. reserv.

01035555
IMAGE PROCESSING SYSTEM AND IMAGE PROCESSING METHOD
BILDVERARBEITUNGSSYSTEM UND -VERFAHREN
SYSTEME ET PROCEDE DE TRAITEMENT D'IMAGE
PATENT ASSIGNEE:
  Kabushiki Kaisha Sega doing business as Sega Corporation, (7325200),
    2-12, Haneda 1-chome, Ohta-kuTokyo 144-0043, (JP), (Proprietor
    designated states: all)
INVENTOR:
  KUBOTA, Hiroshi,Sega Enterprises, Ltd, 2-12, Haneda 1-chome,Ohta-ku,
    Tokyo 144-0043, (JP)
LEGAL REPRESENTATIVE:
  Brown, Kenneth Richard et al (28831), R.G.C. Jenkins & Co. 26 Caxton
    Street, London SW1H 0RJ, (GB)
PATENT (CC, No, Kind, Date): EP 1008959 A1 000614 (Basic)
                              EP 1008959 B1 061108
                              WO 1999012129 990311
APPLICATION (CC, No, Date):   EP 98940626 980828; WO 98JP3867 980828
PRIORITY (CC, No, Date): JP 97234812 970829
DESIGNATED STATES: DE; ES; FR; GB; IT
INTERNATIONAL PATENT CLASS (V7): G06T-015/70
INTERNATIONAL CLASSIFICATION (V8 + ATTRIBUTES):
IPC + Level Value Position Status Version Action Source Office:
  G06T-0015/70   A I F B 20060101 19990413 H EP
ABSTRACT WORD COUNT: 65

LANGUAGE (Publication,Procedural,Application): English; English; Japanese
FULLTEXT AVAILABILITY:
Available Text Language   Update   Word Count
      CLAIMS A (English) 200024   1001
      CLAIMS B (English) 200645   1235
      CLAIMS B   (German) 200645   1105
      CLAIMS B   (French) 200645   1306
      SPEC A   (English) 200024   7099
      SPEC B   (English) 200645   6883
Total word count - document A   8101
Total word count - document B   10529
Total word count - documents A + B   18630

...CLAIMS virtual tank has a simple model of the waves, this simple model
      is a virtual **model** of a **weight** is a predetermined value, and each
      of the four corners of the base are supported...

31/3,K/5   (Item 5 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2007 EUROPEAN PATENT OFFICE. All rts. reserv.

00810033
Method and apparatus for efficient rendering of three-dimensional scenes

Verfahren und Gerat zur leistungsfahigen Graphikdarstellung dreidimensionaler Szenen
Methode et appareil pour le rendu efficace de scenes tridimensionnelles
PATENT ASSIGNEE:
Sun Microsystems, Inc., (2616592), 4150 Network Circle, Santa Clara, California 95054, (US), (Proprietor designated states: all)
INVENTOR:
Goldberg, Richard M., 520 University Avenue No. 11, Los Gatos, California 95030, (US)
Kamen, Yakov, 19334 Greenwood Drive, Cupertino. California 95014, (US)
LEGAL REPRESENTATIVE:
Harris, Ian Richard (72231), D. Young & Co., 21 New Fetter Lane, London EC4A 1DA, (GB)
PATENT (CC, No, Kind, Date): EP 752685 A1 970108 (Basic)
EP 752685 B1 040303
APPLICATION (CC, No, Date): EP 96304978 960705;
PRIORITY (CC, No, Date): US 498733 950706
DESIGNATED STATES: DE; FR; GB; IT; NL
INTERNATIONAL PATENT CLASS (V7): G06T-015/10
ABSTRACT WORD COUNT: 264
NOTE:
Figure number on first page: 1

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200410	1187
CLAIMS B	(German)	200410	1114
CLAIMS B	(French)	200410	1367
SPEC B	(English)	200410	4660
Total word count - document A			0
Total word count - document B			8328
Total word count - documents A + B			8328

...CLAIMS of said system memory independent of said processor; wherein said computer system is configured to **load** **3D** geometry data and **3D** texture data corresponding to said graphical object into said dedicated portion of system memory, wherein...

...wherein said control module, in response to a command from said processor, is configured to **load** said **3D** geometry data and said 3D texture data corresponding to said graphical object into said dedicated...

31/3,K/6 (Item 6 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2007 EUROPEAN PATENT OFFICE. All rts. reserv.

00718761
Central processing unit with integrated graphics functions and method of executing graphics instructions by said central processing unit
Zentralprozessoreinheit mit integrierten Grafikfunktionen und Verfahren zur Durchfuhrung von Grafikbefehle in dieser Zentralprozessoreinheit
Unite centrale de traitement avec des fonctions graphiques integrees et **methode d'execution d'instructions graphiques par cette unite centrale.**
PATENT ASSIGNEE:
SUN MICROSYSTEMS, INC., (1392730), 2550 Garcia Avenue, Mountain View, CA 94043, (US), (Proprietor designated states: all)
INVENTOR:
van Hook, Timothy J., 1124 Werth Avenue, Menlo Park, California 94205, (US)
Kohn, Leslie Dean, 43967 Rosemere Drive, Fremont, California 94539, (US)
Yung, Robert, 5797 Commerce Drive, Fremont, California 94555, (US)
LEGAL REPRESENTATIVE:
Hogg, Jeffery Keith et al (31905), Withers & Rogers, Goldings House, 2 Hays Lane, London SE1 2HW, (GB)
PATENT (CC, No, Kind, Date): EP 680013 A2 951102 (Basic)
EP 680013 A3 970402
EP 680013 B1 020807
APPLICATION (CC, No, Date): EP 95302912 950428;
PRIORITY (CC, No, Date): US 236572 940429

DESIGNATED STATES: DE; FR; GB; IT; NL
INTERNATIONAL PATENT CLASS (V7): G06T-001/20; G09G-001/16
ABSTRACT WORD COUNT: 183
NOTE:
  Figure number on first page: 1

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPAB95	2346
CLAIMS B	(English)	200232	808
CLAIMS B	(German)	200232	651
CLAIMS B	(French)	200232	1002
SPEC A	(English)	EPAB95	6605
SPEC B	(English)	200232	6664
Total word count - document A			8953
Total word count - document B			9125
Total word count - documents A + B			18078

...ABSTRACT the IEU is also used to execute a number of graphics data edge handling and **3 - D** array addressing operations, while the **load** and store unit (LSU) of the CPU is also used to execute a number of...

31/3,K/7 (Item 7 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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00668737
Shape measuring apparatus
Formmessapparat
Appareil de mesure de formes
PATENT ASSIGNEE:
  CANON KABUSHIKI KAISHA, (542361), 30-2, 3-chome, Shimomaruko, Ohta-ku, Tokyo, (JP), (applicant designated states: DE;FR;GB;IT;NL)
INVENTOR:
  Yamamoto, Hiroyuki, c/o Canon Kabushiki Kaisha, 30-2, 3-chome, Shimomaruko, Ohta-ku, Tokyo, (JP)
  Ohshima, Toshikazu, c/o Canon Kabushiki Kaisha, 30-2, 3-chome, Shimomaruko, Ohta-ku, Tokyo, (JP)
  Uchiyama, Shinji, c/o Canon Kabushiki Kaisha, 30-2, 3-chome, Shimomaruko, Ohta-ku, Tokyo, (JP)
LEGAL REPRESENTATIVE:
  Beresford, Keith Denis Lewis et al (28273), BERESFORD & Co. 2-5 Warwick Court High Holborn, London WC1R 5DJ, (GB)
PATENT (CC, No, Kind, Date): EP 641993 A2 950308 (Basic)
EP 641993 A3 950816
EP 641993 B1 990630
APPLICATION (CC, No, Date): EP 94306489 940902;
PRIORITY (CC, No, Date): JP 24383893 930903; JP 23180793 930917; JP 28896593 931118; JP 29951593 931130
DESIGNATED STATES: DE; FR; GB; IT; NL
INTERNATIONAL PATENT CLASS (V7): G01B-011/24; G06T-017/20;
ABSTRACT WORD COUNT: 83

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	9926	1748
CLAIMS B	(German)	9926	1724
CLAIMS B	(French)	9926	2051
SPEC B	(English)	9926	14044
Total word count - document A			0
Total word count - document B			19567
Total word count - documents A + B			19567

31/3,K/8 (Item 8 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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00598557

Apparatus and method for designing a three-dimensional free-form surface
Gerat und Verfahren zum Entwurf dreidimensionaler Freiformoberflachen
Appareil et procede pour concevoir une surface tridimensionnelle de forme libre

PATENT ASSIGNEE:
National Institute of Agro-Environmental Sciences, Ministry of Agriculture, Forestry, and Fishery, (639671), 3-1-1, Kannondai, Tsukuba-shi, Ibaraki-ken, (JP), (Proprietor designated states: all)
INVENTOR:
The inventor has agreed to waive his entitlement to designation.
LEGAL REPRESENTATIVE:
Robinson, Nigel Alexander Julian (69551), D. Young & Co., 21 New Fetter Lane, London EC4A 1DA, (GB)
PATENT (CC, No, Kind, Date): EP 594276 A2 940427 (Basic)
EP 594276 A3 950208
EP 594276 B1 991027
APPLICATION (CC, No, Date): EP 93302297 930325;
PRIORITY (CC, No, Date): JP 92324576 921022
DESIGNATED STATES: BE; CH; DE; FR; GB; IT; LI; NL; SE
INTERNATIONAL PATENT CLASS (V7): G06T-017/40; G06T-017/30
ABSTRACT WORD COUNT: 232
NOTE:
Figure number on first page: 1

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	9943	705
CLAIMS B	(German)	9943	711
CLAIMS B	(French)	9943	843
SPEC B	(English)	9943	3458
Total word count - document A			0
Total word count - document B			5717
Total word count - documents A + B			5717

...ABSTRACT components (Yi) of said three-dimensional coordinate data of said sample points by said main **weight** function, data for depicting **three - dimensional** graph are calculated from said free-form surface obtained by said interpolation values and are...

...CLAIMS of said free-form surface by manual adjustment of coefficients (a1, a2) in said auxiliary **weight** function while watching said **three - dimensional** graph displayed on said display unit.
6. An apparatus according to any one of claims...

31/3,K/9 (Item 9 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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00370447
Three-dimensional geometry processing method and apparatus therefor
Verfahren zur Verarbeitung einer dreidimensionalen Geometrie und Gerat dafur
Methode de traitement de geometrie a trois dimensions et dispositif a cet effet

PATENT ASSIGNEE:
MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD., (216883), 1006, Oaza Kadoma, Kadoma-shi, Osaka-fu, 571, (JP), (applicant designated states: DE;FR;GB)
INVENTOR:
Arakawa, Yoshiki, 5D14-302, Otokoyama-Sasatani, Yawata-shi Koyoto-fu, 614, (JP)
LEGAL REPRESENTATIVE:
Crawford, Andrew Birkby et al (29761), A.A. THORNTON & CO. Northumberland House 303-306 High Holborn, London WC1V 7LE, (GB)
PATENT (CC, No, Kind, Date): EP 364243 A2 900418 (Basic)
EP 364243 A3 920701
EP 364243 B1 960410
APPLICATION (CC, No, Date): EP 89310401 891011;
PRIORITY (CC, No, Date): JP 88256352 881012
DESIGNATED STATES: DE; FR; GB

INTERNATIONAL PATENT CLASS (V7): G06T-015/10; G06F-017/10;
ABSTRACT WORD COUNT: 151

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	599
CLAIMS B	(English)	EPAB96	649
CLAIMS B	(German)	EPAB96	629
CLAIMS B	(French)	EPAB96	729
SPEC A	(English)	EPABF1	4435
SPEC B	(English)	EPAB96	4631
Total word count - document A			5034
Total word count - document B			6638
Total word count - documents A + B			11672

...CLAIMS triangular data and a geometry processing operation unit performing various operations including geometrical set operation, **mass** properties calculation, etc.
(6) The **three - dimensional** geometry processing apparatus as defined in claim 5 comprising a geometry processing operation unit wherein...

31/3,K/10 (Item 10 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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00299949
Displaying method and apparatus for three-dimensional computer graphics
Anzeigeverfahren und -vorrichtung fur dreidimensionale Computergrafiken
Appareil et procede d'affichage pour graphiques d'ordinateur en trois dimensions
PATENT ASSIGNEE:
HITACHI, LTD., (204144), 6, Kanda Surugadai 4-chome, Chiyoda-ku, Tokyo 100, (JP), (applicant designated states: CH;DE;FR;GB;LI;NL;SE)
INVENTOR:
Usami, Yoshiaki, 19-4-401, Ishinazakacho-1-chome, Hitachi-shi, (JP)
Anjyo, Kenichi, 3116-2, Mayumicho, Hitachiota-shi, (JP)
Oota, Yoshimi, 20-1, Mizukicho-2-chome, Hitachi-shi, (JP)
LEGAL REPRESENTATIVE:
Beetz & Partner Patentanwalte (100712), Steinsdorfstrasse 10, 80538 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 311081 A2 890412 (Basic)
EP 311081 A3 910918
EP 311081 B1 980204
APPLICATION (CC, No, Date): EP 88116577 881006;
PRIORITY (CC, No, Date): JP 87253681 871009
DESIGNATED STATES: CH; DE; FR; GB; LI; NL; SE
INTERNATIONAL PATENT CLASS (V7): G06T-015/00;
ABSTRACT WORD COUNT: 173

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	9806	735
CLAIMS B	(German)	9806	727
CLAIMS B	(French)	9806	795
SPEC B	(English)	9806	9728
Total word count - document A			0
Total word count - document B			11985
Total word count - documents A + B			11985

31/3,K/11 (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00815143 **Image available**
STREAMING VIRTUAL REALITY
TRANSMISSION EN CONTINU DE REALITE VIRTUELLE
Patent Applicant/Assignee:
CURL CORPORATION, 8th floor, 400 Technology Square, Cambridge, MA 02139,

US, US (Residence), US (Nationality)
Inventor(s):
MCGUIRE Morgan S, 115 Grove Street, Tarrytown, NY 10591, US,
Legal Representative:
SMITH James M (et al) (agent), Hamilton, Brook, Smith & Reynolds, P.C., Two Militia Drive, Lexington, MA 02421, US,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200148698 A1 20010705 (WO 0148698)
Application: WO 2000US34822 20001220 (PCT/WO US0034822)
Priority Application: US 99474562 19991229
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 8486

Fulltext Availability:
Claims

Claim
... pointer to the three-dimensional data corresponding to a second region in a second memory;
load the second **three - dimensional** data corresponding to a second region of the space from a second memory, including a...

...to the three-dimensional data corresponding
9
to a second region in a second memory;
load the second **three - dimensional** data corresponding to a second region of the space from a second memory,

31/3,K/12 (Item 2 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00574744 **Image available**
METHOD AND SYSTEM FOR A VIRTUAL ASSEMBLY DESIGN ENVIRONMENT
PROCEDE ET SYSTEME UTILISABLES DANS UN ENVIRONNEMENT VIRTUEL DE CONCEPTION D'ENSEMBLES
Patent Applicant/Assignee:
WASHINGTON STATE UNIVERSITY RESEARCH FOUNDATION,
NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY,
JAYARAM Sankar,
JAYARAM Uma,
WANG Yong,
TIRUMALI Hrishikesh,
CHANDRANA Hiral,
CONNACHER Hugh,
LYONS Kevin,
HART Peter,
Inventor(s):
JAYARAM Sankar,
JAYARAM Uma,
WANG Yong,
TIRUMALI Hrishikesh,
CHANDRANA Hiral,
CONNACHER Hugh,
LYONS Kevin,
HART Peter,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200038117 A1 20000629 (WO 0038117)
Application: WO 99US30753 19991223 (PCT/WO US9930753)

Priority Application: US 98113629 19981223
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 25333

English Abstract
...collision detection algorithms. The physical properties of the parts can be created in a separate **CAD** system (including **mass** properties). In the invention, physical property information is transferred from the CAD system to a...

31/3,K/13 (Item 3 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00488486 **Image available**
METHOD AND SYSTEM FOR ESTIMATING JOINTED-FIGURE CONFIGURATIONS
PROCEDE ET SYSTEME POUR ESTIMER DES CONFIGURATIONS DE FIGURES ARTICULEES
Patent Applicant/Assignee:
ELECTRIC PLANET INTERACTIVE,
Inventor(s):
COVELL Michele,
AHMED Subutai,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9919838 A2 **19990422**
Application: WO 98US20922 19981008 (PCT/WO US9820922)
Priority Application: US 9761569 19971010; US 97984681 19971203
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AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
Publication Language: English
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Patent and Priority Information (Country, Number, Date):
Patent: ... **19990422**
Fulltext Availability:
Claims
Publication Year: **1999**

Claim
... accordance with its center of mass, designating a reference point relative to the center of **mass** , computing an eigen-points **model** of the reference points, determining the center of mass for said new image, estimating the...

...with its center of mass, designating said first reference point relative to the center of **mass** , computing an eigenpoints **model** of the first reference point, determining the center of mass for a new image, and...

31/3,K/14 (Item 4 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00400791 **Image available**
DISPLAY DATA GENERATOR FOR FIRE SIMULATION SYSTEM
GENERATEUR DE DONNEES VISUELLES POUR UN SYSTEME DE SIMULATION D'INCENDIE

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Patent: WO 9741535 A1 **19971106**
Application: WO 97US8364 19970425 (PCT/WO US9708364)
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Claims
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Claim
... 5 The method of Claim 1, wherein said generating step is performed by using a **mass** consumption rate of said **model** to determine the number and density of said particles.

6 The method of Claim 1...
?